

TEXTILE BULLETIN

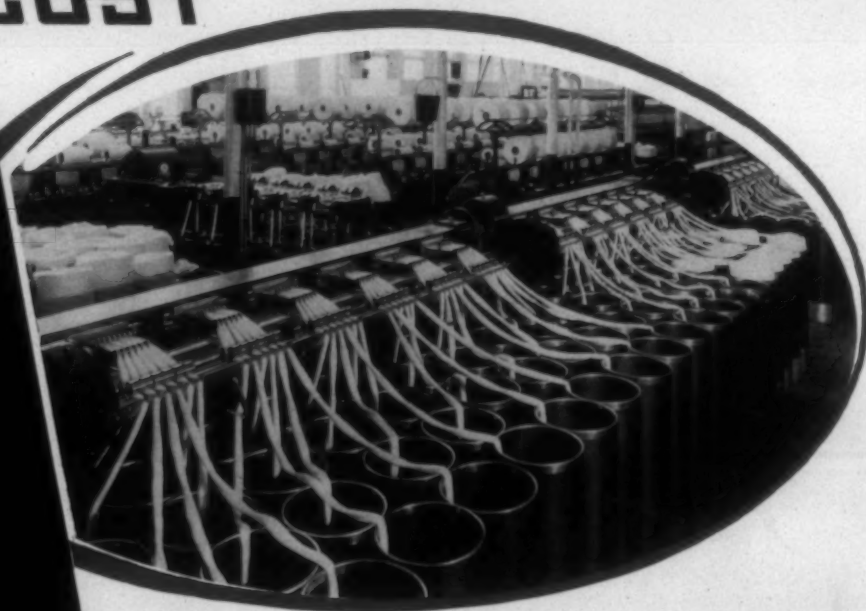
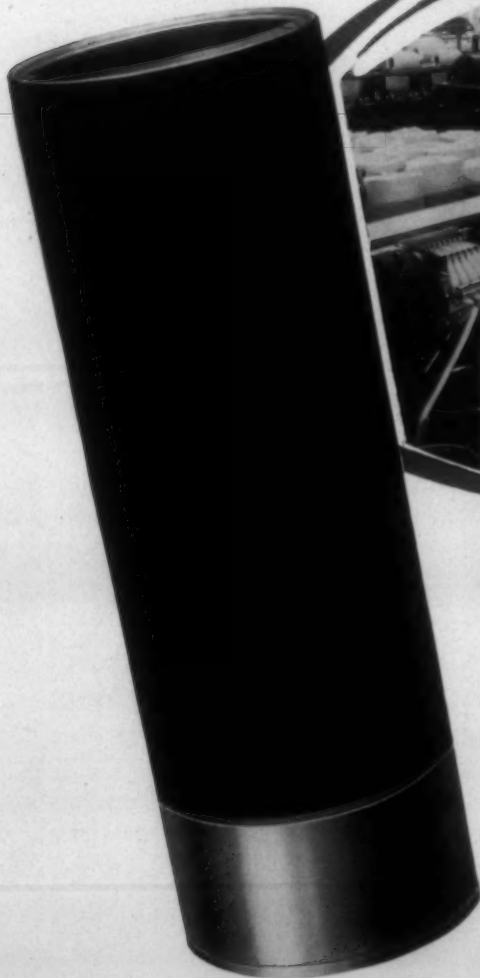


Vol. 57

September 1, 1939

No. 1

LOWER COST



Roving Cans

But there is more to the SONOCO Roving Can than mere price—

It is built from the bottom, up—to give long, efficient service . . .

The bottom rim is re-inforced with cold drawn steel because there is where ordinary roving cans wear out—The top rim is streamlined on the inside so roving will not hang—

Add low cost to these qualities and you've got something.

SONOCO MAKES
EVERYTHING
IN
PAPER CARRIERS

SONOCO PRODUCTS COMPANY
HARTSVILLE S. C.

DEPENDABLE SOURCE OF SUPPLY



Keep Yarn Clean! with



The Drip-less Lubricant—that stays in roll necks and off yarn. Saves its own cost many times over by preventing blackened yarn and oil rotted covers. Saves even more by reducing oil and application cost. Lasts 3 to 5 times longer than oil.

— Ask us for free sample for test —

NEW YORK & NEW JERSEY LUBRICANT CO.

292 MADISON AVENUE

NEW YORK

Works: NEWARK, N. J.

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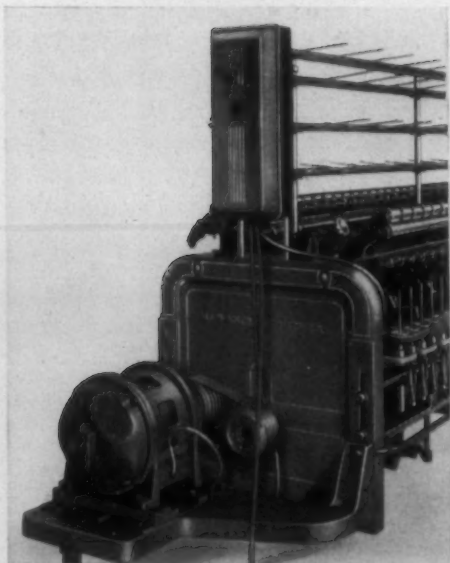
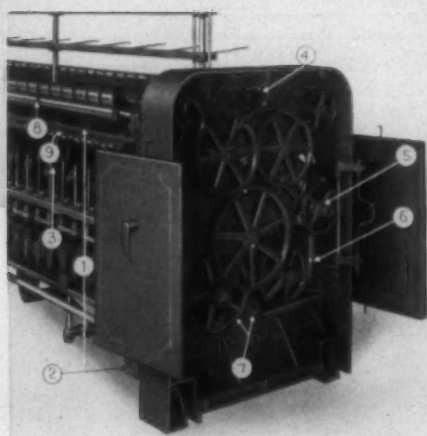
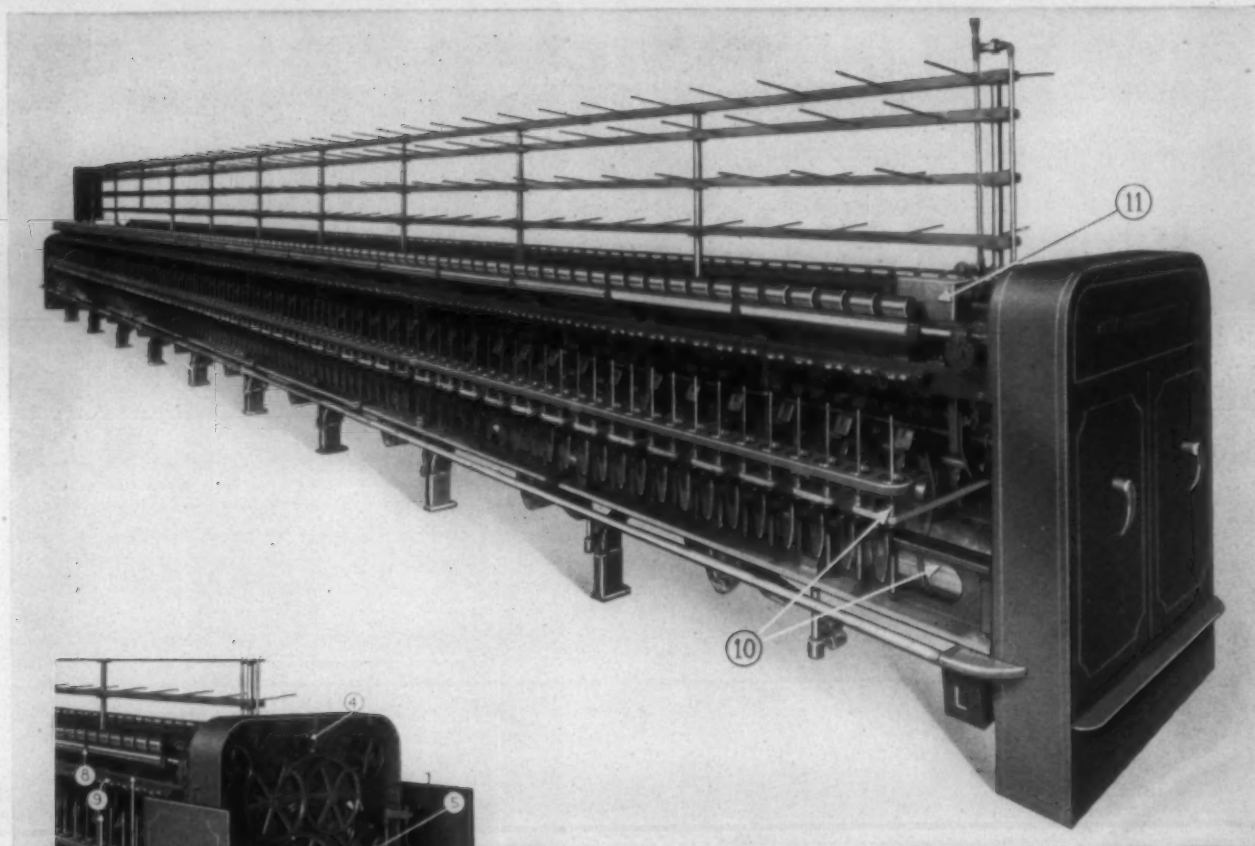
Providence, R. I.

Detroit, Mich.

Chicago, Ill.

St. Louis, Mo.

THE MODEL G TWISTER



ANOTHER NEW H & B MACHINE WITH 11 MAJOR FEATURES

1. Built extra low (37" roller beam) for convenience of operation.
2. Model B builder. Builder chain increased in size and hardened to insure long life.
3. Reversible tension device.
4. Electric stop motion. When doors are opened, machine stops.
5. Ring rail release for quick doffing.
6. Ball bearing thrust washer for builder drive, which eliminates dwelling at end of traverse.
7. Helical cut cylinder and jack gears eliminate noise and insure longer life.
8. Moraine steps for bottom roll bearings eliminate oiling.
9. New type traversing metallic thread board.
10. Ball bearing cylinder and spindles for power saving.
11. Automatic water feed control.

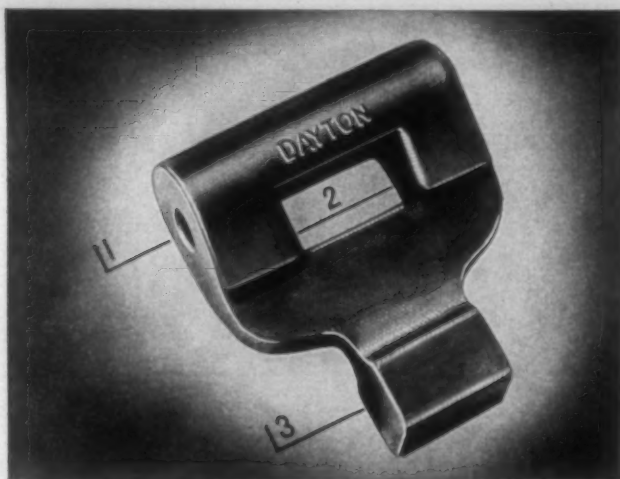
A recent test of this machine in a New England mill showed a considerable saving in horsepower over twisters of the conventional type. Let us figure on modernizing your twister department.

H & B AMERICAN MACHINE COMPANY
Textile Mill Machinery
PLANT AT PAWTUCKET, RHODE ISLAND

Boston office: 161 Devonshire St. • Atlanta office: 815 Citizens & Southern
National Bank Bldg. • Charlotte office: 1201-3 Johnston Bldg.

For Increased Production
DEMAND—

DAYTON Blue Label LOOM SUPPLIES



Only the Dayton Reversible Drop-Box Picker has this exclusive "Three-Point Density" construction.

REVERSIBLE DROP-BOX PICKERS are made specifically for three purposes with the exclusive "Three-point Density" construction. *Point No. 1*—Their composition is harder

around the spindle rod. At this point a self-lubricating resinous bearing which will not become egg-shaped in service is used. *Point No. 2*—A softer composition is used at the picker stick contact. *Point No.*

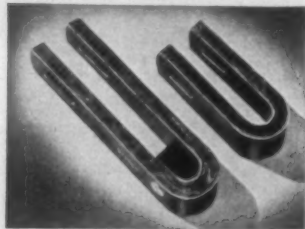
Installation After Installation Proves the Greater Economy of These Products Backed by Eight Years Experience, Development, Testing and Production

DAYTON BLUE LABEL LOOM SUPPLIES are products of Dayton's famed laboratory controlled manufacturing methods. They represent the best that quality materials, skilled labor, modern equipment and trained technical experts have so far produced. They embody the results of over eight years experience in development, testing and production. Each product in the Dayton line of Blue Label Loom supplies is designed and manufactured specifically for the job it is intended to do. And installation after installation has proved their greater economy. Write today for proof of their money-saving advantages or get complete details from your nearest distributor. The Dayton Rubber Mfg. Co., Dayton, Ohio, and Charlotte, N. C.

3—Still another composition is used at shuttle contact to eliminate shuttle point loosening. So this "Three-point Density" construction accomplishes these three purposes: 1. Gives maximum cushion

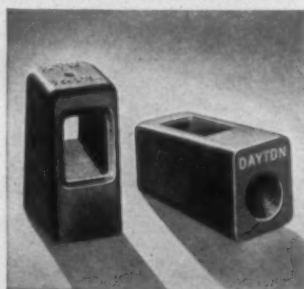
... positively will not wear the picker stick. 2. Gives proper cushion to shuttle point. 3. Gives perfect throw to shuttle throughout the life of the picker.

DAYTON LUG STRAPS are specifically built with these 5 essential



qualities: 1. They have extra strength beyond every requirement. 2. They have sufficient cushion to assure protection to other parts, such as cam rollers and picker sticks. 3. They have the desired resilience plus the ability to absorb shock with immediate come-back. 4. They never require adjustment. 5. They have long, trouble-free life. Their low first cost assures you greater economy. Their freedom from adjustment and their constant power maintenance assures you increased production at lower cost.

DAYTON LOOP PICKERS—Special fabrics bonded together with extra strong, resilient rubber give Dayton Blue Label Pickers the proper cushion and approximately twice the strength of other pickers of this type. Easy to install—they fit the stick and yet have sufficient reserve stretch to accommodate large and off-size sticks. Molded under controlled heat and pressure, they keep their shape and stay "put" on the stick—assure maximum efficiency and reduce shuttle costs. Dayton Loom Supplies are protected by U. S. Patents issued or pending.



THE DAYTON RUBBER MFG. CO.
Dayton, Ohio and Charlotte, N. C.

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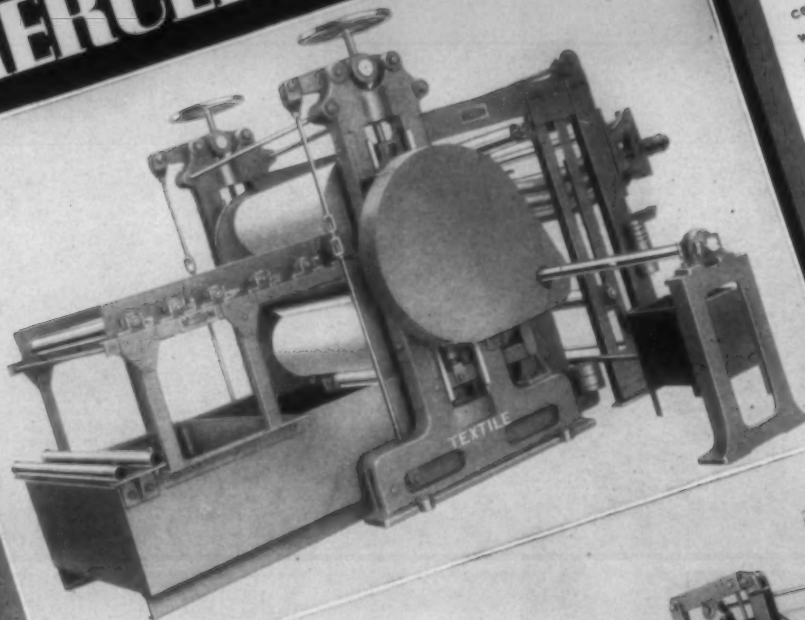
Greenville Belting Co., Greenville, S. C. • Greenville Textile Supply Co., Greenville, S. C. • Odell Mill Supply Co., Greensboro, N. C. • The Textile Mill Supply Co., Charlotte, N. C. • Industrial Supplies, Inc., LaGrange, Ga. • Young & Vann, Birmingham, Ala. • Textile Supply Co., Dallas, Texas • Providence Mill Supply Co., Providence, R. I. • F. L. Hervey Co., Fall River, Mass.

Dayton

Blue Label LOOM SUPPLIES

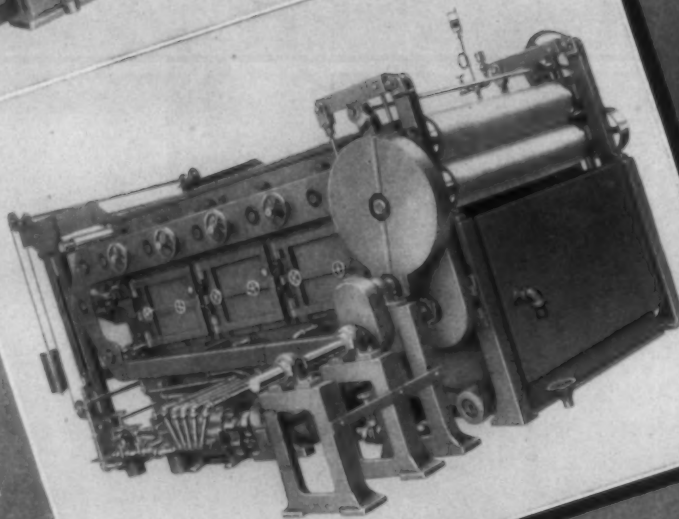
MADE BY THE WORLD'S LARGEST MANUFACTURER OF V-BELTS

Modern Design in PIECE GOODS MERCERIZING EQUIPMENT...



- Heavy duty 3-roll Mercerizing Padder equipped with roller bearings and splash guards for high speed service. Caustic impregnating tank arranged for long contact of the fabric with the mercerizing liquor. Delivery end fitted with heavy duty compensator for multi motor range drive.

- Recuperator Unit for arrangement at delivery end of either Tenter or chainless type Mercerizing Range. The machine is built with a heavy chest roof, fitted with steam chest inter-baffle plates and special internal roll arrangement, multi-stage pump direct motor driven, spray pipes, etc. Final squeezing arrangement of heavy duty design having roller lever and weight pressure attachments.



The Textile-Finishing Machinery Co.

New York Office
50 Church St.



Providence, R. I.

Southern Office
Johnston Bldg., Charlotte, N. C.



GOOD BUSINESS NEWS



ASSURED that OPEN ACCOUNT FINANCING was the easiest and soundest way to finance their business without increasing their capital investment, MAJOR MILLS, Inc.,* eliminated one stubborn problem by a simple change in method.

They changed from the Notice to Customers to the "NON-NOTIFICATION" Plan. Customers had objected to having a third party in every transaction—an outsider supervising credits, and making collections. Continuance of the former plan threatened the loss of desirable accounts.

Investigation of our "NON-NOTIFICATION" Plan quickly led to its acceptance.

It restored to MAJOR MILLS, Inc. its proper function of passing on credits to customers.

It re-established the routine of having customers make direct payments on usual terms.

It eliminated red-tape, complications and delays. It eliminated outside interference with the operations of their business.

It enabled our client to expand through new outlets. By the end of the first year MAJOR MILLS, Inc. was able to show an increase in volume from an annual rate of \$585,000 to better than \$1,000,000.

* * * * *

Frequently we are able to show how concerns can multiply the working power of present capital and finance substantially increased sales without adding to capital investment or negotiating time loans. Our booklet "CAPITAL AT WORK" explains. Let us send you a copy. Write to Dept. "TM." No obligation.

**A fictitious name, but the facts and figures, taken from our records, can be certified.*

COMMERCIAL CREDIT COMPANY

"Non-Notification" Open Account Financing

BALTIMORE

BOSTON

NEW YORK

CHICAGO

SAN FRANCISCO

PORTLAND, ORE.

CAPITAL AND SURPLUS MORE THAN \$65,000,000

AHCOVEL-A

A BETTER SYNTHETIC SOFTENER OF THE SUBSTANTIVE TYPE



GIVES A VELVETY FINISH TO COTTON FLANNELS

1. Provides velvety, soft finish. 2. Resistant to repeated washing and dry cleaning. 3. Non-greasy, odorless finish, which will not discolor with heat or age. 4. Easy to apply; economical to use. 5. Also suitable for other cottons, rayons, wool and silk.

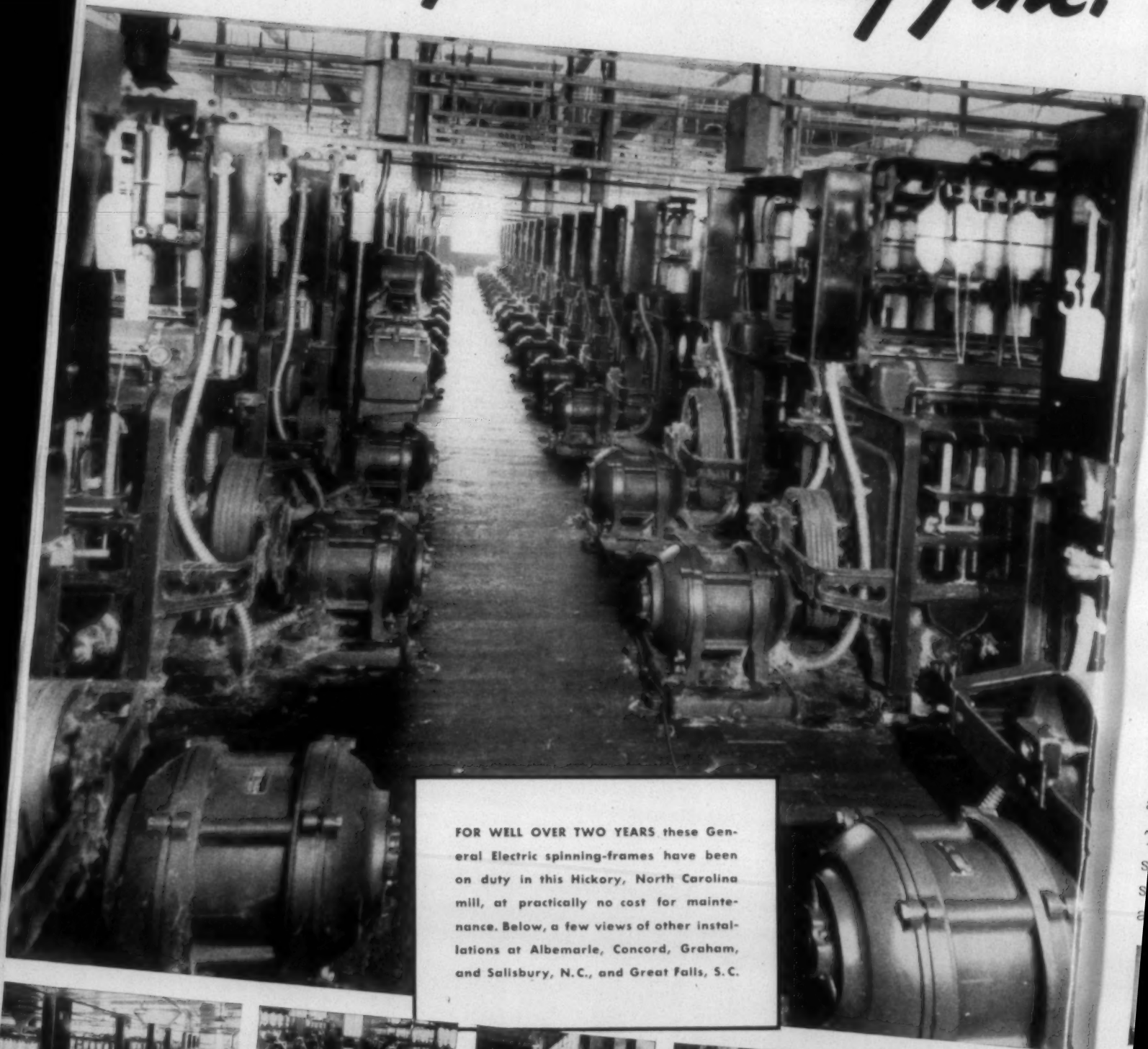
★
WRITE FOR
DESCRIPTIVE CIRCULARS
AND SAMPLES.

ARNOLD-HOFFMAN & COMPANY, INC.

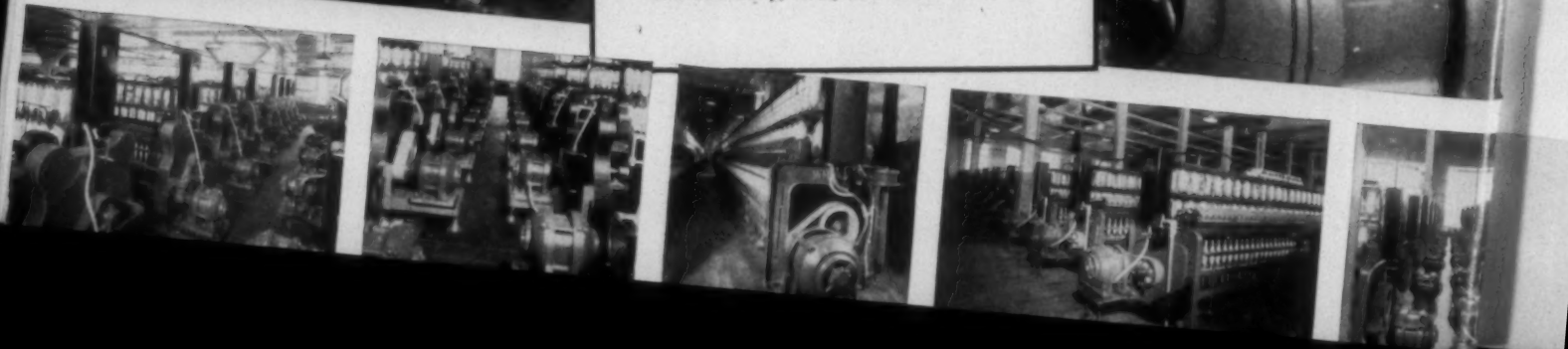
Established 1815 **PROVIDENCE, RHODE ISLAND** Plant at Dighton, Mass.

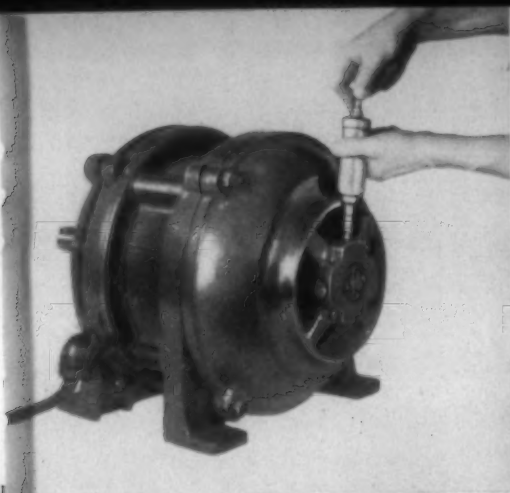
NEW YORK • BOSTON • PHILADELPHIA • CHARLOTTE • COLUMBUS • GREENVILLE

"Operating for 2 Years and They're Cleaning Fine!"

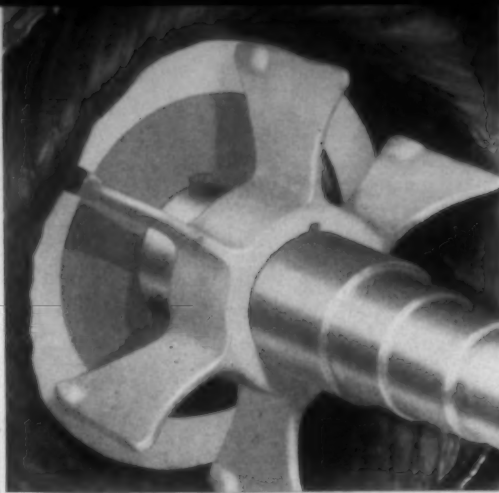


FOR WELL OVER TWO YEARS these General Electric spinning-frames have been on duty in this Hickory, North Carolina mill, at practically no cost for maintenance. Below, a few views of other installations at Albemarle, Concord, Graham, and Salisbury, N. C., and Great Falls, S. C.

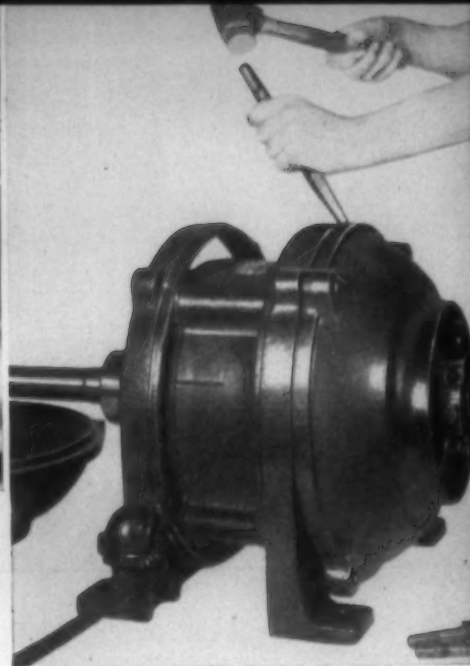




EASY TO GREASE—the long-lived bearings of this type of motor require little greasing; and that takes but a few seconds' time. The pressure-relief system guards against overgreasing



SHAPED TO SHED AND EXPEL LINT are the strong cast fans of distinctive aerodynamic design



EASY, PRACTICAL ASSEMBLY—because this motor is constructed on regular motor lines, it is easy to take down and to assemble. Four bolts on each end secure the end shields; and with these removed, the rotor can easily be removed from, or replaced in, the stator. End shields are interchangeable, end-for-end

That's what the mills say about the G-E spinning-frame motor (SCREENLESS OPEN)

"**THEY'RE** cleaning fine!" is the consensus of mills using the G-E screenless open (spinning frame) motor. The test of time has shown that these motors remain clean of lint for long periods, and at the same time deliver efficient, economical service as motor drives.

Two years ago, following conclusive tests under the severest mill conditions that could be found, this motor was announced at the Southern Textile Exposition.

Today, after this motor has had more than two years' service in many mills, these mills are just as proud of its performance as are we, its manufacturers.

There is no trick construction, but there is a specially designed air-ventilating system. The air passages are large and smooth. There are no baffles. The fans, located at both ends of the rotor, are shaped and positioned to expel lint and dust by positive action.

The design of the motor incorporates, too, the features of mechanical strength and rigidity that G-E motors have demonstrated consistently in textile-mill service. Insulation, windings, accuracy of alignment, all fulfill the most modern standards of motor manufacturing—standards that meet the requirements of textile mills. For further information on this motor, ask the General Electric representative in your territory, or write General Electric, Schenectady, N. Y.



NEW

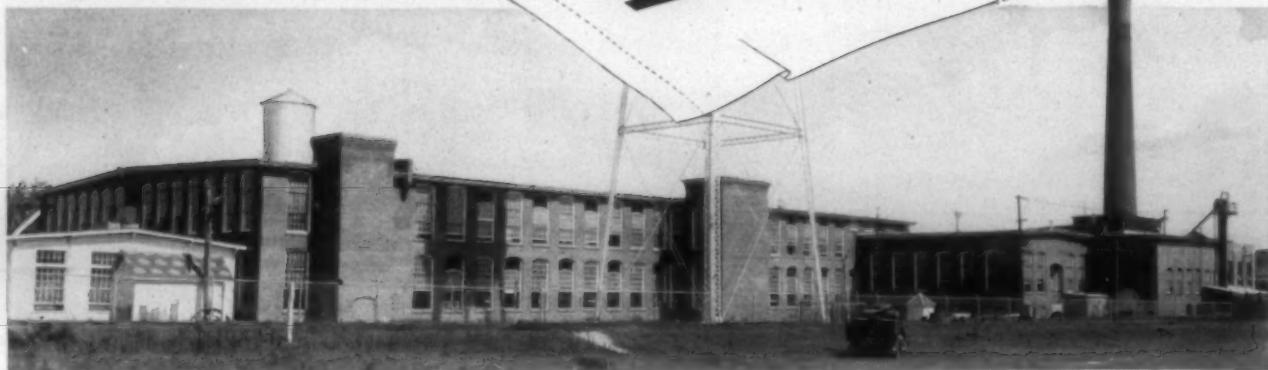
General Electric announced at this year's Southern Textile Exposition an improved loom motor and an entirely new loom switch. The switching element in this switch cannot be slammed "OFF" by the vibration of loom operation. Positive contact is maintained despite loom vibration. It is available for motor-mounting as well as for pedestal mounting. It is roomy for wiring and inspection. Ask the G-E representative near you for further information

GENERAL ELECTRIC

011-459

THROUGHOUT ALL 3 MILLS..

EFFICIENCY



THIS IS JACKSON MILL No. 1 at Iva, So. Carolina. This mill is 100% Texaco lubricated, and has been for 13 years.



MILL AT HIGH SHOALS, No. Carolina, the latest addition to the Jackson group. Now 100% Texaco lubricated, of course.



THIS MILL IS IN WELLFORD, So. Carolina, and is also owned by Jackson Mills. It, too, is Texaco lubricated exclusively, including the power plant.

THESE MILLS have built a most enviable reputation for maintaining a high level of production, year after year. Every department reflects highest efficiency. Every department is Texaco lubricated 100% . . . in all three properties.

Experienced lubrication engineers, trained in the selection and application of Texaco Textile Mill Lubricants, will be glad to demonstrate that savings can be made with Texaco Perfected Lubrication. For prompt engineering service and deliveries phone the nearest of our 2279 warehouses in the United States, or write to:

The Texas Company, 135 E. 42nd St., New York City.

TEXACO

TEXTILE LUBRICANTS



LUBRICANTS FOR LOOMS

You can now use loom lubricant that resists spattering and dripping from bearings. It does as its name implies . . .

STAZON

ASK ABOUT THE NEW

**TEXACO
STAZON**

Texaco Dealers invite you to tune in the "Texaco Star Theatre"—a full hour of all-star entertainment—Every Wed. Night—Beginning Wed., September 13—Columbia Network—9 E.D.T., 8 E.S.T., 8 C.D.T., 7 C.S.T., 6 M.S.T., 5 P.S.T.



THE REPERCUSSIONS OF GOVERNMENT EXPENDITURE ON

National Income and Wealth*

In commenting on the spending policies of the present administration, Mr. Jordan says, "We know, more specifically, that the amount being spent by government currently is greater than the wages earned by all the workers in all the manufacturing industry even in the peak year of 1929.

*** These financial operations and engagements, taken together with the accompanying legislative and administrative of private activity, have so far not restored the general standard of living in this country to the levels of a decade ago."

By Virgil Jordan, President National Industrial Conference Board

THOUGH I shall refer later to the ideas now widely prevalent and applied in political practice regarding the relation of government spending to national income, wealth and economic prosperity, my primary purpose is to provide a background or perspective of fact, experience and principle against which the financial operations of government may be tested or judged. The validity of any theory or the value of any practical policies regarding the fiscal functions of government must be determined by experience and will depend ultimately upon the soundness of the general conceptions of the relation of the State to the welfare of citizens which underlie such doctrines or policies.

I shall begin by emphasizing through a few familiar facts the pervasive practical importance of the problem of government financial policy in the situation of the American people at the present time. It is necessary to understand the essential features of this situation at the outset of this discussion because our experience during the past six years is the most comprehensive and deliberate application of current doctrine regarding the relation of government spending to economic recovery and reform of which we have any example in the historical record. We should surely be able to learn something from it.

The situation may be summed up by saying that in this country today government fiscal functions have become the determining or marginal influence for better or for worse in the fluctuations in the money income of every citizen and in the money value of their property or wealth. To put it more concretely, the amount of money

collected in taxes and borrowed, and spent and invested by all government agencies, and the ways in which this is done by them is now the controlling or critical factor in the private productive effort, business activity, income, consumption, saving and investment of the American people. This applies principally to the financial operations of the Federal Government, since the state and local governments are now in effect, as well as legally, under recent constitutional interpretations, federal administrative agencies and financial dependencies. The concentration of this controlling financial influence goes even beyond the Federal Government in the general sense of the term, and is in fact vested mainly in one man, the chief executive, whose fiscal decisions virtually determine the economic condition of every individual. No citizen can escape the influence of those decisions upon the amount of work he does, how much money he receives for it, how much he spends, saves and invests, and how much his past production and savings are worth.

Monopolistic Concentration of Economic Power

* Put in these terms, the repercussions of public finance on national income and wealth represent a pretty comprehensive monopolistic concentration of economic power, such as is officially deplored in private life. But before we try to appraise it in terms of public interest, let us look at some of the essential features of its operation, examine the results, and consider the processes by which it has developed, and the principles underlying it.

The financial mechanism of government itself, with its elaborate structure of subsidiary corporations and credit agencies, has become so complex that few can even describe it completely, much less understand it. Moreover, it is now so interwoven and correlated with a vast network of legislation and administrative agencies for regulating employment, management, production, construction, trade, prices, wages, banking and capital markets, that it can no longer be considered separately as a mere process of government management of labor, investment and consumption; and ideas about the relation of public

*Address at the Citizens Conference on Government Management, Estes Park, Colorado.

spending to national economic conditions must be considered in connection with the whole process of political management of the economic system. They cannot be viewed *in vacuo*, or in the economist's favorite atmosphere of "other things being equal."

In the actual process of State management of economic activity the essential function of fiscal operations is no longer the simple and primitive one of securing funds from private enterprises to pay the expenses of providing elementary community services, such as police, fire and sanitary protection, schools, roads and bridges. Taxation, borrowing, spending, lending and investment are now phases of an elaborate process of attempting to regulate the amount, the value, the flow, the distribution, and the uses of the total private national money income and property of citizens, by drawing off streams or reservoirs of money purchasing power from the community, creating or extinguishing money purchasing power, and diverting it in directions and to uses determined by the State, under collateral direct regulations and controls of the activities of individual citizens which are considered appropriate to these purposes. In this process we can no longer isolate and measure the effectiveness of the fiscal factors themselves, but we can form some idea of their extent and influence.

National Income 63 Billion

As a result of the work done by all the people in this country with the tools, equipment, land and natural resources they use, they realize currently about 63 billion dollars annually, so far as it can be counted, which they call their national income. Their real income, of course, is the amount of actual goods and services for current consumption or future use in producing more later which they can buy with this money. Obviously their real income is determined by how much of such goods and services is available for them to buy, not by how much money they have; and this depends upon how much they have produced, which means how much work they have done. Their money income might be greatly increased or diminished in many ways without necessarily affecting their real income, if they did as much work as before and produced as much goods and services. Even though the amount of money distributed to them for their year's work were doubled, as it might be in various ways, they would not be any better off, unless the amount of goods and services produced with the work done were increased. No matter how much money they have, their purchasing power depends upon the effectiveness of their productive effort. If this were not true, the only machines they would need would be printing presses. This fact is fundamental in considering the relation of government financial operations to the national income. The first important question about any operation of the government on the flow or distribution of money income in the community is how it affects the amount of work done and the amount of goods and services produced thereby in the community.

A second important and closely related question is how it affects the form of the current and future consumption of the community. As I said, the work done by the American people, with the tools, equipment, land and natural resources available to them yields about 63 billion dollars annually at the present time. Whatever the real

value or purchasing power of this money may be, they cannot spend all of it as they please to purchase such goods and services as they individually desire for their current consumption or productive use. A large part of it is taken out of their hands by the taxing agencies of government, and is spent for many other purposes, mainly by the concentrated authority of the Federal Government. These purposes are generally described as "social or public services." Whatever their value may be to the community—and I do not question it—the fact remains that they represent, at least in part, involuntary or compulsory consumption or investment. It is fairly certain that if this money were left in the hands of those who earned it, it would be used to buy somewhat different goods and services, or to make other investments for future use. To the extent that it is not so used the consumption and investment of the community are being managed by central authority rather than by free choice of individual citizens. The degree to which this collective consumption, or investment, is compulsory or reflects voluntary co-operation controlled by democratic or representative decisions is open to debate; the important point is that however determined, it inevitably implies a limitation of individual choice in consumption and investment, and therefore in some measures alters the form, and affects the structure, distribution and level of private production and employment. It means essentially that a part of the aggregate national living budget is predetermined and preempted by public authority, and that therefore the individual expenditure budget and living costs of every citizen must be adjusted to a fixed charge for public services, for interest on debt, for charity and for compulsory saving or insurance. If the national output of work in producing them remains the same, the aggregate individual consumption of food, clothing, housing, home furnishings, transportation and recreation must be proportionately reduced. *There is no escape from the arithmetical fact that if the people collectively consume more public services and make more public investments, they must increase their output or curtail their private expenditure, consumption and investment.* And, further, if the process of public consumption and investment in themselves, together with the collateral controls upon private production and investment, tend to retard the growth of production or reduce the output of work, they must tend to reduce the general standard of living.

Gov't. Agencies Spending Fifth of National Income

Using the authoritative estimates of The Conference Board, we find that all government agencies are spending money currently at the rate of \$17 billion per year, of which nearly half is being spent by the Federal Government. About \$13 billion of this money is being collected in taxes and the remainder is created by credit. This expenditure is equivalent to about a quarter of the currently realized national income; or counting only net payments to individuals as interest, salaries, and for relief and similar purposes, it accounts for about 20%, or a fifth of the national money income. The taxes collected represent a withdrawal from income available for use by taxpayers of about 22% of the total national money income realized.

Are these amounts and proportions excessive? Are
(Continued on Page 32)



Processing Filament Rayon Yarns

By W. Tabor Robinson

The third of a series of articles dealing with: Receiving, Opening, Storing, Moisture Conditioning, Soaking, Drying, Winding; Lubricants, Tints, Vats, and Water.

IN previous discussions of the subject of Processing Filament Rayon Yarns, particular emphasis has been given the fact that, because of the delicate and sensitive nature of such yarns, it is imperative that they be handled with the most rigid care, and that precise consideration be given all details of each step of their processing. Unimportant factors do not exist in routing these yarns through a plant. Carelessness and indifference in the work of any department working with them will inevitably exact heavy penalties of the mill through claims for sub-standard materials.

Extracting

Extracting, the phase of processing filament rayon yarns directly following the soaking treatment, is commonly done by centrifugal force. Machines constructed for this purpose are so designed that danger of tearing or hanging the yarn bundles is negligible. Packing the yarn correctly for its whirl, unloading it after extraction, consideration of a time-gauge method, and keeping the machine in an acceptably clean condition are the important factors of this process.

In loading yarn bundles into the extracting machine from a truck or other conveyance, it is easy for the workman to tear the filamentous fibres of the yarns by improperly grasping the packages. A firm grip about the bundle, or the hand slipped beneath it and lifted are safe and logical methods to use in avoiding such damage. Since the bundles are unusually heavy before extraction, their weight is too great to be supported by even a large number of the yarn strands.

Commonly the wet bundles are placed circularly about the cylindrical bed of the machine, and stacked one upon another until the top layer requires a bit of force to be clamped securely beneath the extractor's rim. For the open-top machine this is necessary to prevent the yarn being thrown from it while revolving at a terrific speed. If the load is sufficiently large that the entire machine bed is loaded, it should be packed firmly, and care should be used to prevent any bundle protruding above the machine top.

Some extractors are automatically timed to run for a specified number of minutes, while others must be gauged by an ordinary clock or watch. It is important that this phase of extracting be given necessary consideration. Insufficiently extracted yarns will usually prove difficult to dry correctly and will often cause the dryer operator unnecessary trouble in jerking for the dryer rods. Over-extracted yarns lose some of the benefits given them by the soaking treatment.

A very plausible method of gauging the extraction time-length is to load the machine with the amount of yarn to be contained in each extraction unit, set the machine to run at the speed which is desired, run for five minutes, and then weigh the yarn after extraction. If the amount of liquor extracted is too great, the time might be shortened proportionately, or if insufficient, it might be lengthened. Correctly extracted yarns should weigh approximately twice as much as in their pre-soaked condition.

Conditioning liquors, if allowed to dry on the machine's outer rim, will often cause the formation of a thick, sticky substance which easily soils the yarns. It is wise to rinse the extractor thoroughly at the beginning and close of each work-day. In circumstances where the machine is used alternately for dyed and tinted bundles, it should be rinsed after each extraction.

It is possible for yarns to become soiled while extracting by oil dripping from the mechanism at the top of the machine. A frequent inspection for this possibility and reasonable care exercised in keeping this part of the machine clean virtually eliminates a likelihood of such damage.

Soaked and extracted yarns often become sour or rancid if stored too long before drying. The same tendencies are characteristic of the unabsorbed soaking liquors. Abnormal or greatly varying temperatures affect them, either in the vats or in the yarns. For this reason, first-soaked yarns should be first-dried yarns. Many mills prefer that the drying facilities of the plant are never more than forty-eight hours behind the out-put of the soaking room.

Another reason for the necessity of drying as soon as possible after extracting is the fact that the cream, oil or size used in the soaking liquors often become hardened and too thickly settled at tightly compressed places in the

(Continued on Page 40)

How To Prevent Uneven Yarn

Following are further articles submitted in the contest on "How to Prevent Uneven Yarn." A total of 75 articles were submitted, and the winners will be announced as soon as the judges have had time to properly read the articles and judge their merit.

NUMBER TWENTY-FOUR

The way to prevent uneven yarn is for those of us who have anything to do with making it to correct the conditions we know to be causing unevenness. Not so much uneven yarn is made due to the causes being unknown as to the failure of someone to remedy the things he knows to be wrong.

Learning the causes of uneven yarn is essential, but it is only a part of preventing the unevenness. There are hundreds of causes known today and if merely listing these causes would prevent uneven yarn each department of every mill would have a detailed and up-to-date list posted of all known causes.

To prevent uneven yarn make quality yarn. Adopt a definite standard of quality for the yarn and keep this before everyone having any part in making it. Instead of the object being merely to make yarn, enlarge it to make clean, smooth, strong, even yarn. Keep everyone interested in accomplishing this and not only thinking of ways to do it, but doing something about the ways he finds. This not only applies to those spinning the yarn, but throughout the mill. Everyone must see the product at his machine in relation to the finished yarn, keeping in mind the fact that even yarn cannot be made from uneven roving, sliver or lap.

Making even yarn requires co-operation. Not only must there be a standard or goal to work toward, but there must be thorough co-operation between the management, supervisors and employees. The same spirit of co-operation must exist between departments and between individual workers in each department. Failure in any one place breaks down the standard.

The word "yarn" is used to indicate a continuous strand, produced from either animal, vegetable or mineral fibrous substances, such as wool, cotton or asbestos. The

writer limits this discussion to cotton carded yarn produced by drafting of the product by a sequence of processes comprising picking, carding, drawing frames, fly frames and ring spinning, and assumes the reader is familiar with the processes in a general way.

A perfect thread is of the same diameter and evenly twisted, with the same number of turns twist per inch throughout its length, and of uniform strength at all points. Uneven yarn can therefore never be perfect. We know that in an uneven yarn the twist runs to the small part and that no twist is inserted in the large part until the small place will take no more. Uneven yarn has not quality.

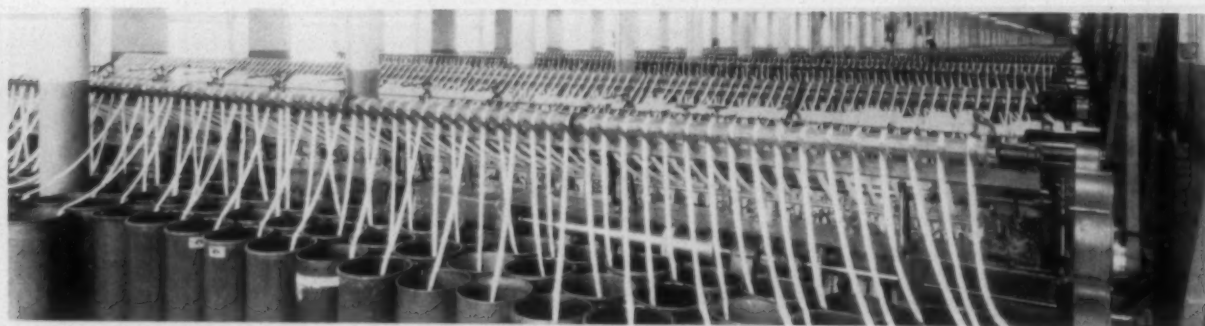
There are said to be an average of one hundred and thirty million individual fibers in one pound of cotton. One pound of cotton spins usually from one to more than one hundred miles, depending on the size. It is easy to realize the importance of keeping these fibers as nearly in place as possible.

It is necessary to have machinery in condition to produce quality yarn. Of perhaps equal importance is to use raw material capable of being concerted into an even piece of yarn. Humidity and temperature conditions throughout the mill should be kept as near standard as possible.

Too high speeds for condition of equipment and raw material injures the yarn. Much study should be given the correct speeds for quality work. Excessive drafts; too much twist; improper cleaning, especially top drafting rolls; improper lubrication, causing worn roll necks and stands and binding top rolls; these are general causes of uneven yarn throughout the mill.

Good running work is one of the greatest preventives of uneven yarn. Generally what causes work to run bad will weaken the yarn, but not always enough to break it. If it fails to break it is uneven, and if it breaks it is almost always made uneven in piecing up. Bad running work keeps the operator in a rush and unable to do his best even if he tries. Good running work removes more potential causes of unevenness than we often realize.

Along with getting ready to make even yarn comes proper training of employees. He should be taught the



The Interesting Story of Better Shuttle Friction

We are better able than ever before to furnish a Shuttle exactly suited to your Filling Yarn and Fabrics you are weaving

There is a reason—the Stroboscope

We have designed and commercially produced 7977 different kinds of Shuttles

Each of these 7977 differed from every other in some essential feature

Each was the result of your Experience and our Research as we have tried to give you better Shuttles to handle each of the many Yarn Counts and Yarn Fibres

We have followed these 7977 kinds of Shuttles into your mills and studied the results—of the failures if any developed and of the successes

In overcoming such failures as occurred we have made use of every mechanical device that might aid us in seeing what the naked eye could not detect

About three years ago we began to use the Stroboscope

At Harvard with the Stroboscope they have just taken remarkable stop-action pictures of insect wings whirring as fast as 350 times a second

With us the ability to see what happens in any ten-thousandth part of a second as we tried out the many kinds of yarn with various Shuttle Frictions gave us the facts that are Your Protection when we select the Friction for Your Shuttles

With Draper Shuttles—You Can Get

One of the New Series of Eyes we have developed for All Yarns

The New First Pick Tension in Rayon Shuttles

The New Shuttle Spring with Rubber Vibration Dampener to eliminate Spring Breakage and Loosely Held Bobbins—a Most Important Improvement

The Shuttle Tension that the Stroboscope has shown Best for Your Yarn

Guess Work is Out
With Draper Shuttles You Can Be Sure

DRAPER CORPORATION

Atlanta Georgia

Hopedale Massachusetts

Spartanburg S C

correct way to run his job. Discuss with him the specific causes peculiar to his process. Also point out the things of a general nature, such as good housekeeping, careful attention to his work, etc. Interest employees in taking pride in their work. Recognize and compliment outstanding work.

The picker tender should know that from an uneven or split lap the card will always produce a cloudy or uneven web and sliver, and that no subsequent process can entirely correct this defect. The card tender should know that he can feed into his machine a perfect lap and still deliver an uneven product, by only a choke in the top colender roll or running his cans too full. Indirect labor is not to be overlooked. The grinder should know that using dull clothing, clothing with holes and mashed places in it, uneven setting of doffer or flats, etc., makes miles of uneven yarn daily.

Even though the primary object of the drawing frame is to reduce unevenness, this machine is responsible for a large amount of uneven yarn. This is partly due to this machine being so simple its importance is overlooked.



Usually drawing is operated by about the most unskilled labor in the plant. Chokes, bad piecing up, running cans too full, bad roll necks, foreign matter wedged in flutes, stretch between front and delivery roll are common causes.

The fly frames and spinning frames are likely to ruin good sliver. One of the worst causes is lack of oil on the rolls, causing binding and wear. Rollers out of alignment, roller weights on wrong, cap bars not set straight, too much or too little draft, hard ends from improper piecing up, rollers not clean, fluted rolls, singling and splicing in piecing up, back lash in gears, fanning off frames, worn roll necks and stands, are among the chief causes.

Many detailed lists of causes are now available. Many more will come from this contest. The emphasis should now be placed on taking action to remove them. It is the writer's belief that the mill creating the most interest in its entire personnel in looking for these and new causes and removing them will nearest succeed. It is a program more far reaching than preventing uneven yarn. It develops efficient help; it keeps machinery in good condition; it improves working conditions; it reduces waste; It increases production; it cuts costs; it raises standard

of quality of product and adds to its value and rewards everyone for the effort required. Let's prevent uneven yarn!

B. B. J.

NUMBER TWENTY-FIVE

There are so many things that may cause uneven yarn, and so much has been said on the cause and prevention of same one hardly knows where to begin.

From a practical standpoint I should like to mention a few causes that have come under my observation from time to time and some things we must watch carefully to prevent them. To begin with we must have an even staple cotton, as no one can make a smooth and even yarn out of cotton or any other fiber where the length varies too much.

The man in charge of picker rooms should inspect every bale of cotton carefully and open as many bales as he has room for, as this gives him a better mixing and blending. The picker hands should be taught to keep a uniform amount of stock in the hoppers at all times as an uneven feed will produce a lap of varying weights per yard. Pickers should be kept clean inside at all times to prevent ragged laps.

Laps should be weighed carefully and any excess variation should be checked and the cause corrected. When the laps reach the cards the hands should be taught to put them on properly, as too much overlap causes thick places and too little causes thin places in the card sliver. Cards should be checked as to settings and general conditions.

Cards should be properly ground. The light grinding is generally preferred, as excessive grinding causes hooked wire which causes flats to load. The card sliver should be weighed at regular intervals, and any excessive variation should be checked and corrected.

Card hands should be trained in the proper way to strip, as careless stripping causes uneven sliver. The lap machines should be checked carefully as to lap weights on both sliver and ribbon machines, as uneven laps cause variation on the next process.

The combing tenders should watch carefully for any split or broken laps as these cause uneven sliver. The man in charge of combing should check percentage at regular intervals and keep as even a percentage as is possible on all machines.

The drawing frame was designed to remove irregularities from sliver by doubling and drafting, but the unskilled operator often fails to get this result. As the entire production of the mill is governed as to weight and uniformity at this point, it is important that every phase of the operation be checked often. Both top and bottom rolls should be kept in good condition. Rolls should be properly set and oiled, and if using leather top rolls the best material should be used for covering and should not be run if loose, grooved or fluted.

On all fly frames a careful check should be made to prevent dry rolls, improper roll setting and uneven tension, especially at the start of the doff where there is a tendency to start too tight, thus stretching the roving.

The importance of properly gauged bobbins for speed-

(Continued on Page 40)

"Better lubrication shows up Here"

...SAYS THIS OVERSEER



"Gulf's **HIGHER QUALITY LUBRICANTS** help us get
better production with fewer oil stains in the cloth"

"RIGHT here in the cloth room we see the evidence of better lubrication throughout the mill with Gulf's higher quality lubricants," says this overseer. "Trouble with oil stains in the cloth has been practically eliminated, and there has been a general improvement in production."

When you standardize on Gulf's higher quality oils and greases for all your mechanical equipment, you can expect to get operating improvements all along the line. The safest procedure for you to follow is to call in an experienced Gulf engineer and ask him to

look over your equipment and recommend the right lubricants and their proper application for each machine and moving part.

Then you will *know* that your equipment is protected against excessive friction drag, wear, vibration, and the common run of operating difficulties which usually go along with ineffective lubrication.

Gulf's higher quality lubricants are quickly available to you through more than 1100 warehouses from Maine to Texas. Write or 'phone your nearest distributing point.

GULF OIL CORPORATION • GULF REFINING COMPANY

GENERAL OFFICES: GULF BUILDING, PITTSBURGH, PA.

● The head spinner in another mill says: "GULFGEM OIL has helped us maintain efficient operation with higher speeds and longer draft. We regard GULFGEM as production insurance in our mill. Properly applied it has helped us improve our production materially."



● The general superintendent of a large mill says: "I watch this report on the performance of our automatic warpers, and from it I can tell how the spinning room is operating. With GULFGEM OIL in service our spinning frames run smoothly and we have very few broken ends on the warpers."

Mill Pays Taxes on "Ghost" Property

Shelby, N. C.—A check for \$406.31 was received in the Cleveland County auditor's office from the Cliffside Mills for tax payment due on a \$125,000 power plant on Broad River which has never actually existed.

Each year since 1917 the Cliffside Mills have paid taxes for the "ghost" plant. . . . In that year the Cliffside concern contemplated building a power development on Broad River, and the mill officials requested that a bridge be built across the river so that construction could be started.

The county commissioners agreed to span the river with a bridge on condition the Cliffside Mills guarantee the construction of the proposed power development. . . . A contract was drawn up whereby the officials guaranteed to pay the county taxes on the valuation of \$125,000 or more plant.

The requested bridge was built on Broad River, but the contemplated development advanced no further than the erection of a few mill houses, which today are unoccupied.

Actual tax on the ghost power plant is \$412, with the mill annually taking advantage of the discount period and saving around \$6. The Duke steam plant now under construction on Broad River near Cliffside is about one-half mile from the site of the \$125,000 Cliffside Mills' "ghost" development.

July Spindle Activity Same As 1938

Washington, D. C.—The Census Bureau reported the cotton spinning industry operated during July at 81.5 per cent of capacity, compared with 82.2 for June this year and 70.2 for July, 1938.

Spinning spindles in place July 31st totaled 25,377,986, of which 21,915,362 were active at some time during the month, compared with 25,546,376 and 21,788,286 for June. Active spindles in July, 1938, amounted to 21,915,394.

Active spindle hours in July totaled 6,622,285,983, or an average of 261 hours for each spindle in place. Spindle activity in cotton-growing States: 5,190,387,615 for an average of 283 hours per spindle in place; New England States: 1,293,538,200 for an average of 208 hours per spindle in place; all other States: 138,360,168 and 173.

Spinning spindles in place included: In cotton-growing States, 18,354,212, of which 16,526,872 were active at some time during the month, compared with 18,429,010 and 16,380,852 for June; and in New England States, 6,224,988 and 4,760,550, compared with 6,318,928 and 4,777,374 for June.

Active spindle hours included: In cotton-growing States, 5,190,387,615, or an average of 283 hours for each spindle in place, compared with 5,787,747,039 and 315 for June; in New England States, 1,293,538,200 and 208, compared with 1,448,957,210 and 229 for June.

New Textile Firm

Greenville, S. C. — Piedmont Reed and Sales company of Greenville was chartered August 10th to manufacture and sell textile supplies and equipment. The concern was capitalized at \$6,000 and was headed by H. E. Littlejohn, president, and H. C. Beattie, secretary.

Georgia Mill Is Fined For Wage-Hour Violation

Camilla, Georgia.—Alfred I. Bennett, as president of the Camilla Hosiery Mill, Inc., entered a plea of guilty in United States District Court Aug. 15th to violating the wage-hour law.

Judge Bascon S. Deaver imposed a fine of \$150 against the hosiery mill and Bennett himself was fined \$100.

The company was placed on probation for a period of three years on the other 22 counts of the information filed in District Court at Macon on July 15.

Monticello, Ga., Gets New Textile Plant

The Jordan Manufacturing Company has selected Monticello, Ga., as base of its new operations, according to L. K. Jordan, president of the company.

Associated with Mr. Jordan will be a number of outstanding textile executives, and all of the men in the plant are experienced bobbin makers.

The new company is in position to meet the demands for any type of bobbin, spools, skewers, cones, twisters, etc., and orders for its products are already being taken by the new company.

Court Approves Plan For Reorganization Of Spencer Mills

Asheville, N. C.—The reorganization plan for Spencer Mills, submitted by J. S. Dockery, disinterested trustee, was approved August 19th by Judge E. Yates Webb in Federal District Court, without objection from any creditors.

Two amendments incorporated in the plan since the original was filed were approved. These amendments do not alter the fundamental basis. One changes the name from Spencer Mills to Spindale Mills, Inc. The other rejects the profit sharing contracts between the debtor and E. H. Timanus and Ralph E. Loper Co. They will not be undertaken by the reorganized debtor.

Judge Webb, in his order, specified that creditors and stockholders may accept or reject the plan at any time before September 9th, by filing in writing their acceptance or rejection with the Clerk of the Court. It is generally understood, however, that practically all of them have accepted or will accept the plan as amended. It then becomes operative after September 9th.

A. G. Heinsohn, Jr., will be manager of the company with official title as president and treasurer.

Delay Decision On Cowpens Mills Plan

Spartanburg, S. C.—Cowpens Mills stockholders and counsel have deferred action on a proposed reorganization plan pending further negotiations in an effort to reopen the plant. A. M. Law, special master, said another hearing would be held soon.

Resumption of operations is the only alternative stockholders have to a possible unprofitable liquidation, several spokesmen said at a meeting held in Federal Court. Sale of remaining goods manufactured by the mill and stored was ordered.

JORDAN *Bobbins*

Announcement

This new company starts a specialized business to supply the textile trade with all types of Bobbins, Spools, Skewers, Cones, Twisters, etc.

For more than 40 years the name of Jordan has been prominently identified with textiles, enabling mills to benefit in many ways.

Improved manufacturing, supervised by experienced Bobbin makers mean performance and economy to Jordan customers.

Your orders and inquiries will be handled promptly and will be appreciated.

JORDAN *Manufacturing Company . . .*

Specializing in

A. L. BOBBINS
WARP BOBBINS

SPEEDER BOBBINS
AND SKEWERS

SPOOLS
CONES

TWISTER
ROLLS, ETC.

MONTICELLO, GEORGIA

Mill Superintendent Lands Large Order

From the accompanying photograph it may easily be seen that when Howard C. McKenna, superintendent of the New Braunfels (Tex.) Cotton Mills goes out for something there is no telling what might happen.



The following letter, which most fishermen will consider exceedingly brief and modest, was received by us recently from Walter Dillard, vice-president and general manager of the mills:

"I am sending you a picture taken last week showing a 550 pound sea bass caught by our superintendent, Howard C. McKenna, off the coast near Galveston, Texas.

"I thought maybe you would like to have this photograph to show the textile industry that Texas not only has good cotton mills and personnel, but we can hold our own when it comes to fishing, also.

"Incidentally, this huge fish was caught with the small line shown on the rod which Mac is holding."

Personally, we wonder if Mac was fishing for sea bass, or if sea bass was fishing for Mac.

New Spun-Lo Yarn for Weaving Achieves High Standards

First quality rayon yarns for weaving, produced by the new continuous method which is said to insure uniform, direct treatment over the entire length of each thread, made their bow recently under the Spun-Lo Rayon label. Formal announcement of this new product by Industrial Rayon Corporation follows the successful completion of tests on yarn produced at the company's new Painesville (O.) plant, where initial units went into production last December.

Yarn shipments from the new \$11,500,000 plant have been going to mills in various parts of the country ever since, but the management has not marketed this initial output as first quality pending completion of the "run-in" period on new equipment and exhaustive yarn tests in which major rayon weavers co-operated.

Individual Thread Treatment

New standards of uniformity in cleanliness, strength, denier and dyeing characteristics have been built into this yarn by the procedure of bleaching, treating, drying and twisting each individual thread directly, as it advances as a single thread layer through all the processes from viscose extrusion to the bleached, dried and twisted yarn, according to the announcement.

Jumbo Bobbins

Jumbo bobbins which carry more than 2½ pounds of yarn in a single unbroken strand are standard throughout the Painesville plant. There is no intermediate winding into packages or handling for processing, so that the yarn is not subjected to wear or damage.

Cleaner Yarn Packages

Superior coning methods and equipment and the larger bobbins have enabled the new plant to produce packaged



Rayon yarn is subjected to uniform, direct treatment on these continuous spinning machines as individual threads move down from one stage to the next over 10 thread-advancing reels in one continuous vertical sequence. Viscose pumped from aging tanks in the basement to the top deck of these 19-foot machines coagulates as it passes through the microscopic openings in tiny platinum spinnerets into spin tanks behind the streamlined aluminum and glass enclosure seen above. Forty to 90 loosely clustered filaments making up each thread of yarn are passed along a thread-advancing reel inside this hood and then moved down to the processing section where these reel tenders are working. Bleaches, washes and special tinting and processing solutions flow onto the yarn as it rides these plastic reels toward the aluminum dryer reel cap twister and bobbin, which are located at the bottom of the machines below this grille walkway.

yarns with a minimum of knots. The general physical cleanliness of the yarn has given interesting results in comparative test operations.

Product of a Precision Machine

Synchronized precision mechanical operation of the



Joe H. Mason of Greensboro, N. C. (center), familiar figure in textile circles throughout this sector where he represents the Industrial Rayon Corporation, watched new machines at the company's Painesville, Ohio, plant spin and finish rayon. Fred Palmer, superintendent of the plant (left), and Charles W. Carvin, sales manager of the yarn division (right), explained the new process when members of the organization got together recently, preparatory to introduction of these new yarns.

continuous spinning machines, plus the close control of chemicals at all stages, has led to the ultimate uniformity

of yarns in different packages as well as within each individual package. The Painesville plant will produce all standard deniers and lusters of yarn, as justified by market conditions. The flexibility permitted by these precision machines, which have been built by a practical rayon producer, has made it possible to develop specialty yarns for specific purposes. Thus Industrial will be able to offer a yarn built for warp with the special characteristics desirable for this use, also a separate yarn for filling, and a variety of yarns prepared and tinted to achieve various pebble results in crepe. It is said that this represents the first attempt of a rayon producer to offer custom made yarns to meet the various different requirements of the textile industry.

Approaching Capacity Production

With three-quarters of the 9,600 continuous spinning ends scheduled for the new plant already in production and erection of the final group of machines nearing completion, the operations at Painesville are rapidly approaching its 12,000,000-pound rated annual capacity.

Between 1,500 and 2,000 feet of yarn are constantly in process at each spinning position, although the spinning reel which draws loosely clustered filaments up from the coagulating bath is less than 19 feet away from the bobbin in which the finished, dried and twisted yarn is wound. This is made possible by plastic thread-advancing reels which "hold" the yarn for the required length of

time at each stage in the process so that bleaches, chemicals and washes can do their work. After riding down the terraced processing panel over a series of eight plastic reels, the yarn is dried on an enclosed heated aluminum



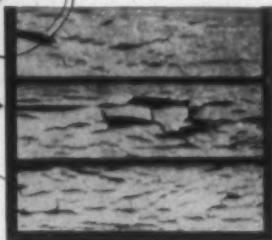
These jumbo bobbins, carrying 2½ pounds of yarn in one uniform, unbroken thread, have facilitated the establishment of new standards in the rayon industry. Yarn spun, treated, dried and twisted in a single sequence on Industrial Rayon Corporation's new continuous spinning machines is transferred to cones which have a minimum of knots. The operator is just starting a thread on the empty cone for a new package. The yarn is drawn up from the stationary bobbin under measured tension.

reel of the same type. The yarn is twisted as it passes over a stainless steel cap and is then wound up for the first time on the bobbin at the bottom of the machine.

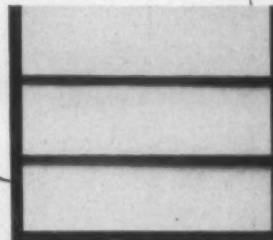


I'M A PAINT DETECTIVE

*I Investigate the Leaks
in Paint
Maintenance Budgets*



LOW GRADE
PAINT



DUTCH BOY
PAINT

Have you a hunch that you're spending too much money on paint for your plant and company houses? Then why not let me tackle the problem? I've spent a good many years of my life as a *Special Investigator of Painted Surfaces*. I'm a field man for the National Lead Co., makers of the famous Dutch Boy White-Lead.

When a manufacturer calls me in, my first job is to make a check-up of all painted surfaces on company property. Purpose: to discover ways and means to cut maintenance costs. One of the worst things I run into are surfaces that have cracked and scaled badly like the left-hand photograph up above.

When cracking and scaling start, the property owner has unexpected expense on his hands. Before repainting, the whole surface will have to be burned and scraped. In a large area job, that runs into money. So does the extra coat—the new priming coat—which has to be applied in repainting.

Cracking and scaling is something that

doesn't happen in the long life of paint made with Dutch Boy White-Lead. This means three separate savings for the owner: (1) The paint gives much longer service on his property. (2) When repaint time does arrive, no expensive burning and scraping is necessary. (3) Since the Dutch Boy surface is still intact no new priming coat is required in repainting.

Here's my proposition

Just say the word and I'll come and inspect all of your buildings. I'll work out a

plan for repainting, listing which surfaces should be done this year and which ones can wait. The paint formulas I'll recommend will be especially suited to your requirements. This is possible because Dutch Boy is always mixed to order for every job. This service won't cost you one red cent. No obligation. Just write and say when it will be convenient for me to look over your property. I can be reached at the addresses below.

NATIONAL LEAD COMPANY
111 Broadway, New York
659 Freeman Avenue, Cincinnati, Ohio

Philadelphia Branch

JOHN T. LEWIS & BROS. CO.
Widener Building, Philadelphia



Reproducing the Weave Room in Miniature

By J. Dupre

For Control

DURING the past several years the tremendous success attained by a number of popular publications that are devoted almost entirely to pictures has amply demonstrated the tendency of the average person to grasp things quicker when presented in such a way that the eye can take in the whole situation at a glance, without too much resort to the thinking involved in formulating a picture in the mind from printed material, or from verbal or written instructions. In a modified form this tendency can be used to advantage in the weave room, particularly in a mill where there are frequent changes of styles and consequent changes in the assignments of weavers, battery hands, and loom fixers.

Naturally, such factors as the size of the mill, the class of goods manufactured, mill layout, etc., have considerable bearing on the advisability of adopting the system to be explained here, but it is the opinion of the writer that it can be adopted to advantage in a majority of mills that are operating on a variety of constructions.

The idea is to have the master mechanic, or carpenter foreman, construct a panel to hang on the wall, with each loom in the room represented by a number and a nail or

possible mill conditions, showing the style number, cloth width, construction, warp and filling yarns, type selvage, selvage ends, cut length and date warped. This information may be varied to suit the requirements of the individual plant or overseer.

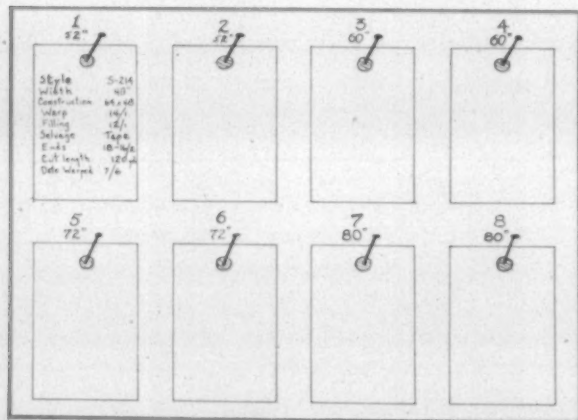
From such a panel the overseer of weaving can keep a much closer touch on the conditions existing in his department than is usually possible through the keeping of other records, and with proper adaptation to the conditions that are peculiar to his mill, he may increase his efficiency to a remarkable degree.

The method of controlling the information contained on such a panel will depend on local conditions, but it has been the writer's experience that it can be adapted to fit the conditions of almost any weave room. In a small mill it may be possible for the overseer himself to take care of the posting on the tags; in another mill the second hand might do it; in a large mill the duties might be performed by a clerk, who has few other duties to handle.

The great advantage of this system is the possibility of visualizing, almost at a glance, the conditions over the entire room. If a warp runs out on a loom, the tag should be removed within a short while, and it is a good idea to note the time of running out on the back. The tag should then be filed for possible future reference. By noticing the empty looms, the overseer may make a quick estimate of the possibilities of warping up for a style that is falling behind on deliveries, or by observance of the warping up date on the cards, he may quickly estimate the approximate date when a particular style will run out so that another style may be promised for delivery.

A variation of this idea of a panel to indicate the weave room would be two panels, much smaller than the main control panel, showing merely the loom numbers, with the weavers' assignment on one panel and the battery hands' assignment on the other. As a rule the loom fixers' assignments are not changed as often as the others, so it is usually not feasible to include a separate panel for them.

Where a mill is on a variety of goods so that frequent changes are necessary in the assignments of weavers and battery hands, it is a matter of considerable work and worry to the second hand, or whoever is responsible for the assignments, to instruct the individual in their particular stand of looms. With a panel to indicate each group, it is possible to mark, with chalk, each job layout and indicate each job with a number so that the individual may merely be presented with a number, which they check against the panel to find the boundaries of their job.



peg upon which to hang a tag. Then have tags printed in a standard form, with spaces to indicate the information that is desired on each loom. The amount of information to be shown on each tag depends on local conditions, other records kept, etc., but the object is to illustrate the weave room as completely as possible with the minimum amount of time and trouble.

The accompanying illustration shows, for simplicity, a weave room composed of eight looms. It will be noted that the panel shows each loom number and its width in permanent form above the nail upon which the tag is to be hung. The tag for No. 1 loom is filled out to indicate

OBITUARY

WILLIAM J. SWINK

Kannapolis, N. C.—William J. Swink, 86, former associate of the late J. W. Cannon in the building of the Cannon Mills Co., died in a hospital in Salisbury, N. C., August 23rd.

Mr. Swink had been retired for some time. A pioneer textile manufacturer, he was a director of Cannon Mills and of the Wiscasset Mill, Albemarle. With Mr. Cannon he helped found the town of Kannapolis.

EDWARD D. GANUS

Cumberland, N. C.—Edward David Ganus, 37, night overseer for Rockfish Mills here, died of a heart attack while watching a movie at Fayetteville, N. C., August 19th. Mr. Ganus had been employed by Rockfish Mills for a number of years.

J. W. McELHANNON

Durham, N. C.—J. W. McElhannon, 59, former secretary and treasurer of the Durham Cotton Mfg. Co., died here recently from a heart attack.

Mr. McElhannon moved to Durham three years ago to become superintendent of the Durham Cotton Mfg. Co. Later he became secretary and treasurer, which position he held until the company was liquidated in the spring. At the time of his death he was superintendent of the Stonewall Cotton Mill in Stonewall, Miss.

OSCAR HENRY HAY

Carrollton, Ga.—Oscar Henry Hay, 57, superintendent of the Mandeville Mills, died suddenly at his home August 20th.

Mr. Hay was a member of one of the most prominent families in Carroll County and took an active part in civic affairs. He was associated with the Mandeville Mills for the last 39 years.

W. R. WIDDUP

Spartanburg, S. C.—William R. Widdup, well known textile man, died recently following an illness of three weeks.

For about 25 years, he was connected in an executive capacity with the Spartan Mills. For the past 15 years, he had been a salesman for the Andrews Reed & Harness Co. of Spartanburg.

He was born in England, but came to this country with his parents at the age of two months. He was reared and educated in Jonesville, Mich.

O. C. MOORE

Sumter, S. C.—Otis Corcoran Moore, 46, veteran bedspread manufacturer and head of Polly Prentiss, bedspread manufacturing concern, died of coronary thrombosis August 23rd.

He was also head of Asbury-Prentiss, Inc., a pioneer in the use of chenille process for making apparel, all the way from formal gowns to beach wear.

In July, 1939, Mr. Moore undertook the organization of the Tufted Bedspread Manufacturers' Association, of which he was recently re-elected president.

New Features GREATLY INCREASE Efficiency



FAST - AUTOMATIC - ECONOMICAL BOBBIN CLEANING

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Personal News

A. E. Franklin has resigned as overseer of carding at the Graniteville Mfg. Co., Warrenville, S. C.

Z. B. Mangum, of Sylacauga, Ala., is now superintendent of the Avondale Mills, LaFayette, Ala.

C. E. Willis, of Nashville, Tenn., is now overseer of carding at the American Thread Co., Dalton, Ga.

E. B. Shaw is superintendent of the American Thread Co., Dalton, Ga.

H. L. Hearman succeeds J. F. Allen as superintendent of the Hill Spinning Co., Roseboro, N. C.

F. F. Cuddy has succeeded W. B. Cozart as superintendent of Greenville Spinners, Inc., Greenville, N. C.

J. G. Shedd, of Winnsboro, S. C., is now overseer of spinning at the American Thread Co., Dalton, Ga.

C. E. Foster has succeeded Gordon Helton as superintendent of the Hafer Hosiery Mills, Hickory, N. C.

Walter Crawford has succeeded Albert Harrison as superintendent of the Caldwell Hosiery Mills, Granite Falls,

E. M. Wilson has accepted the position of superintendent of the Saluda Full Fashioned Hosiery Mills, which is being erected at Saluda, S. C.

V. A. Mims has been transferred to the position of superintendent of the Avondale Mills, Sycamore, Ala. Mr. Mims was formerly at LaFayette, Ala.

W. P. Dunson, formerly of LaGrange, and Manchester, Ga., is now production manager at the American Thread Co., Dalton, Ga.

K. S. Tanner, who has been treasurer of the Grace Cotton Mill Co., Rutherfordton, N. C., has been elected president of the mill also.

W. M. Hynds has resigned as president of the Oklahoma State Cotton Exchange to become director of field service for the National Cotton Council.

James E. Sumpter, formerly in charge of research for Consolidated Textile Corp., Lynchburg, Va., is now connected with Cannon Mills Co., at the New York office.

Rogers Dayvault, of China Grove, N. C., who has been employed in the treasurer's office of the Cannon Mills at Kannapolis the last five years, has been named secretary and assistant treasurer of the Alexander Manufacturing Company at Forest City, N. C.

John A. Pons is now superintendent of the Huffman Full Fashioned Hosiery Mills, Morganton, N. C.

Jas. O'Conner has become superintendent of the Whitehall Knitting Mills, Mt. Holly, N. C.

Geo. H. McRae is superintendent of the Wyatt Hosiery Company, Sanford, N. C.

M. L. Dergler is superintendent of the Trayler Corporation, New Braunfels, Tex.

Earl Duke is now at Callaway Mills as assistant to A. E. Ruff, manager of the new drapery department.

Paul Schmidt has succeeded K. E. Young as superintendent of the Wytheville Knitting Mills, Inc., Wytheville, Va.

Herbert Greenwood has accepted the position of superintendent of the Grayson Full Fashioned Hosiery Mills, Independence, Va.

Clifford P. Flanagan has been appointed research chemist and technician at the Virginia Maid Hosiery Mills, Pulaski, Va. He is a graduate of the New Bedford (Mass.) Textile School.

R. D. Harvey, agent and manager of the Pepperell Manufacturing Company, Lindale, Ga., has been named by Governor Rivers as a member of the State Board of Regents.

Gustave G. Stuade has resigned as secretary and treasurer of the Penn-Carol Hosiery Mills, of Concord, N. C., to become assistant manager of the Hoover Hosiery Mills of the same place.

J. H. Wood, formerly treasurer of W. B. Davis & Sons, Fort Payne, Ala., has succeeded W. Y. Shugart as president of the Shugart Hosiery Mills, Lenoir, Ga.

Wm. D. Anderson, president of Bibb Mfg. Co., Macon, Ga., is on the Manufacturers' Committee of the Agricultural Committee of the National Association of Manufacturers, which will meet under the auspices of the Alabama Polytechnic Institute on September 21st and 22nd at Auburn, Ala.

Abner Nash has resigned as secretary and assistant treasurer of the Alexander Mfg. Co., Forest City, N. C., to become production manager for the Spartan Mills, Spartanburg, S. C., the Startex Mills, Tucapau, S. C., and the Gaffney Mfg. Co., Gaffney, S. C. Before leaving Forest City, Mr. Nash was presented with a gold wrist watch by the employees of the Alexander Mfg. Co. as a token of their esteem.

Carl Harris To Head Warp Sizing Research

Carl R. Harris, manufacturing engineer, Erwin Cotton Mills Co., Durham, N. C., has accepted appointment as chairman of the administration committee for the cotton and spun rayon warp sizing research to be conducted at North Carolina State Textile School, Raleigh, N. C., under the auspices of U. S. Institute for Textile Research, Inc. The other members of the committee are Thomas Nelson, Dean of the School, and Dr. W. E. Yelland, who was director of the Institute's previous research on the sizing of filament viscose rayon, and is now with the research department of Corn Products Refining Co.

Mr. Harris was graduated from N. C. Textile School in 1917, has had a broad experience in cotton textile manufacturing since then, and is a past president of the Southern Textile Association.

Willard Smith Joins Borne-Scrymser Co.

Willard E. Smith, of New Brunswick, N. J., is the most recent addition to the staff of the Elizabeth, N. J., Laboratories of Borne-Scrymser Company.

Mr. Smith, who is a member officer in the Chemical Warfare Organized Reserve Corps, was graduated with this year's class from Rutgers University, where he majored in organic chemistry.

Under the direction of Dr. E. H. Schmidt, Mr. Smith will assist in the development of Borne-Scrymser's textile specialties and condensation products.

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TEXTILE BULLETIN

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Will There Be War?

As this is written Europe appears to be upon the verge of another great war but before this issue reaches our readers the crisis may have been averted.

As we write this, it is our guess that there will be no war and we base that belief upon the idea that for Italy to enter a war upon the side of Germany would be to commit suicide.

Italy has the third largest shore line in the world and, with a navy below the strength of either England or France, would soon see its protection disappear and its coast and near-coast cities at the mercy of the enemy.

The claims of Hitler to Danzig, a town of 90 per cent German population, and a road across the Polish corridor to that country, are not without some justification, but, as the British note said, Hitler can not continue to create crises and gain territory thereby.

Our guess may be all wet but we do not think that Italy dares to enter a war against England and France or that Germany will fight without Italy.

We feel that when Germany signed an agreement with Russia, it alienated Japan and thereby lost more than it gained.

Germany may start a war but we do not believe that it can win.

Communist Dilemma

Who are we to criticise Communist Russia for selling out to Nazi Germany?

Did we not sell out to Russia for the admitted purpose of material gain which never materialized?

Robert Ripley (Believe-It-or-Not), after a visit to Russia, had said:

In a single year—1932—four million peasants died of starvation in the Ukraine and North Caucasus—the most fertile part of all Russia. The Soviet Government deliberately caused this ghastly chaos by robbing the farmers of their grain in order to sell it in foreign countries and acquire foreign currency. The people struggled to subsist on dogs, cats, weeds and grass—even extracting the gold filling from their teeth in order to buy a loaf of bread in a Torgsin shop. I traveled from one end of the country to the other and never saw a dog or cat, nor did I hear one person laugh or see a single smiling face.

Prof. L. Tarashevich, noted Russian sociologist, in an official report to the League of Nations, had said that thirty million Russians had starved to death since the country turned Communist. This astounding figure had been substantiated by Fridtjof Nansen, head of the world organization of the Red Cross and delegate of the League of Nations to Russia.

The Soviets had destroyed all religion and looted the churches, taking all the gold, tapestries, priceless paintings and precious stones valued at twenty billions of dollars.

They had shot without trial more than a million people and sent countless thousands in exile in the bitter cold of Siberia.

Stalin in an address to visiting Communists from America had said:

I think that the moment is not far off when a revolutionary crisis will be unleashed in America, and when that revolutionary crisis comes in the United States, it will mark the end of world capitalism. The Communist Party of the United States must be armed to be able to meet this historical moment and to head the forthcoming class war.

In spite of all of the above, including the declaration of Stalin, in behalf of a revolution in the United States, the Communists and near Communists in this country conducted an intense and successful campaign for the recognition of Russia.

A feature of the propaganda was the dangling before Americans, of prospects of an immense and profitable business to be secured from Russia and the report that, if given recognition, she would pay her debt to us.

Because we were, falsely, made to believe that it would be exceedingly profitable to us, we ignored the things which the Soviet Government had done, even its efforts to influence the over-

throw of our Government, and extended the hand of recognition.

We sold out to Russia for a mirage of pottage and it is not for us to now blame Russia for selling out to Germany.

Only a short time ago the Communists were taking advantage of the nefarious acts of Adolph Hitler, at that time an enemy of Communism, to flood the country with propaganda against the Nazi, but since then Stalin, who is their God, has extended the hand of friendship to Hitler and the Communists and near Communists are certainly in a dilemma.

They have been taught to hate Hitler and to talk against him, but he is now a "buddy" of Stalin and any friend of their God is their friend.

Even though Hitler was driving the world towards war, the last few days have witnessed a marked cessation of the verbal and written attacks upon him.

American Communists have found themselves in a hole and are awaiting orders to shout "Heil! Hitler."

Foolish Statement

In recent weeks New England papers have carried several stories about the recent movement of cotton mills from New England to the South.

We wish to call attention to the following Census Bureau figures:

| | June, 1933 | June, 1939 |
|-------------------------------|------------|------------|
| Southern spindles in place | 19,069,210 | 18,429,010 |
| New England spindles in place | 10,848,390 | 6,318,928 |

It is true that since June, 1933, New England has dismantled about 4,500,000 spindles, but as the South, instead of adding spindles, lost 600,000 during that period, it is difficult to show that New England mills have been moving South.

In February, 1929, New England had 21,007,000 cotton spindles but by March, 1923, when the New Deal came into existence, had seen them reduced to 10,982,000 and the decline since that time has been but a continuation of the disintegration process which had already begun.

Although New England still has 6,318,000 cotton spindles, they are only operating 4,750,000, and the bottom has not been reached.

The disintegration of the cotton textile industry has been based upon allowing its machinery to become antiquated and inefficient, which, in turn, was due partly to labor union activities and partly to inefficient management which has succeeded the efficient management of former years.

South Carolina's Burden

We note with interest the following newspaper dispatch:

Columbia, Aug. 6.—Establishment in South Carolina of "an effective progressive political organization" was proposed today in a resolution adopted by a state-wide conference of the Textile Workers Union of America, a CIO affiliate.

The conference went "on record as calling all labor and progressive groups to join in a state convention at the earliest practicable time for the purpose of establishing an effective progressive political organization in South Carolina."

It is a well known fact that South Carolina has in recent years secured very few new industries.

Virginia, North Carolina, Georgia, Alabama, Mississippi and to some extent Tennessee have been acquiring new industries, but rarely does one locate in South Carolina.

Full-fashioned hosiery mills, which are especially desirable because of the character of the work and the high pay, have been passing by South Carolina and, at least, a dozen such plants have located in Georgia. We happen to know that a rayon manufacturer wished to locate a large plant in South Carolina but was afraid.

There is, of course, a reason why industries have been afraid to locate in South Carolina and it is the fear of radical legislation under the pressure of politicians seeking to secure the votes of textile employees.

Governor Olin Johnson, who thought that he could ride into the United States Senate upon the votes of cotton mill employees, did great harm to the Palmetto State because his election convinced the world that South Carolina can come under the control of radicals of his type and that there is no assurance that men like Governor Maybank can remain in office.

The resolution passed by the CIO Conference at Columbia was a declaration that radical interests should combine and control South Carolina to an even greater extent than in the past.

South Carolina has many fine citizens and it offers a multitude of advantages to industries, but its politicians know that the best way to get elected is to propose some law which will appeal to the textile voter.

The mill employees do not seem to realize that when they support legislation which is unfair to industries, they injure themselves and their children.

When new industries fail to locate and the expansion of present industries is discouraged, persons growing up in the mill villages, will find less opportunities for employment and for advancement.

Mill News

TUCAPAU, S. C.—A new warehouse is being constructed here at the Startex Bleachery.

GIBSONVILLE, N. C.—Work is going forward here at the Minneola Manufacturing Company on the installation of new Whitin machinery in the carding division.

GREENSBORO, N. C.—Piedmont Silk Mills, Inc., has received a charter to make and sell textile fabrics under authorized capital of 10,000 shares, par value \$10 each, with four shares of stock subscribed by James McClamroch, Hilda R. Hines and Rebecca Coble, all of Greensboro.

KNOXVILLE, TENN.—Announcement is made that Jefferson Woolen Mills will increase the size of its dye department by erecting a \$4,000 addition to the plant on Blount Avenue. The structure also will include additional office space. A. R. McMurry Construction Company has the contract.

COLUMBUS, N. C.—Announcement is made here that the property of the Katerman-Mitchell Company, formerly manufacturers of silk and rayon throwing, has been sold to the Forest City Cotton Company of Forest City, N. C., and the buildings have been converted into a bonded warehouse, known as the Farmers' Bonded Warehouse. M. P. Bodie of Forest City, head of the Forest City Cotton Company, stated that the plant would be used for storage until such a time as conditions permit it to be used as a manufacturing unit.

ELKIN, N. C.—As work goes steadily forward on the mammoth new building under construction by the Chatham Manufacturing Company, to house the finishing department, one section of the new three-unit warehouse has been put into use when six carloads of blankets were recently moved to Elkin from the Winston-Salem plant and stored.

The four-story napping building under construction is about half completed, approximately 90 per cent of the wet finishing building is complete and the roof and windows are being placed.

LEXINGTON, N. C.—Work has gotten well under way at the Lexington Silk Mill on the construction of a brick addition to the company's plant on West Center street extension under the supervision of Griff W. Smith, local contractor. The new addition will measure 87 by 125 feet and will thus provide around 10,875 square feet of floor space. The building will be of brick and steel sash construction.

The building program will represent an expenditure of around \$25,000. Rayon piece goods are manufactured by this company, using 206 looms.

LAURENS, S. C.—Sales of 190 Laurens Mill houses to employees of the plant began August 10th.

Treasurer M. L. Smith said the houses would be sold under 10-year Federal Housing Administration loan plans.

SWANNANOVA, N. C.—The Beacon Manufacturing Company has had under construction a modern new superstructure, which has been built to adjoin the present mill building. This company is engaged in the manufacture of cotton napped goods and blankets.

PATTERSON, N. C.—Yadkin Cotton Mills, Inc., of Patterson, has received a charter to own and operate a cotton mill under authorized capital of \$100,000, with \$3,000 stock subscribed by G. L. Whisenant, Mrs. Josie M. Whisenant, and R. O. Whisenant, all of Maiden, N. C.

This was formerly the Patterson Cotton Mill, operating 4,248 spindles.

GASTONIA, N. C.—Many of the employees of the Groves Thread Company are purchasing homes, which are being sold by the company. Employees and occupants of the houses being given first chance to buy. Workers are offered the houses on a 10 per cent payment of the sale price of the house with the balance to be paid in weekly payments for a period of eight years.

SILURIA, ALA.—The Buck Cotton Mills have had a modernization program under way, a good part of which has been completed.

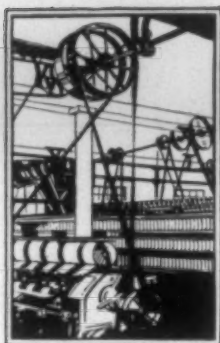
The most modern type of equipment is being used in this modernization program. A Lummus bale-mixer has been installed on the bale breaker in the opening room. The Aldrich synchronized single-process system has replaced the original installation of two-process pickers in the picker department. A Lummus gyrator cleaning, blending and distributing machine feeds the three single-process pickers.

CONCORD, N. C.—The Stead & Miller Company, of Philadelphia, Pa., which for a number of years has owned controlling interest in the Hartsell Mills Company, acquired the properties of the company as of July 31, 1939.

It is understood that this change is for the purpose of simplifying operations of the two companies, and that in the future the entire manufacturing business of both former Hartsell Mills Company and the Stead & Miller Company will be carried on in Concord.

Much of the equipment of the Stead & Miller Company of Philadelphia has already been transferred and set up in Concord. It is further understood that there will be no change in the present officers and operating personnel.

MASTER MECHANICS' SECTION



Reclamation of Textile Mill Parts*

By Hugh Comer, Vice-President and Manager

Avondale Mills, Sylacauga, Alabama

A COTTON MILL and an acetylene torch are close brothers. One does not buy a cotton mill machine and then a torch. One buys them both at the same time.

The framework of practically all of the cotton textile machinery is made of cast iron, as are many of the moving parts. Breakage starts almost immediately after the machines are packed properly some of it arrives already broken. As you know, there are two sources of supply for obtaining replacement parts: One, to buy them new; the other, the welding torch. Of course, there are many parts that cannot be repaired with the acetylene torch but when it is possible to repair the part in the machine shop the saving may range from 50 to 90 per cent. So large and immediate is the saving that before any broken part is permitted to be thrown in the scrap heap at the Avondale Mills, the broken part has to pass through the hands of specified individuals, and these individuals are alert to the possibilities of the acetylene torch.

The program of replacing broken parts at the Avondale Mills is as follows: When first discovered, the part is taken to the foreman of the room who investigates the reason for the breakage. The part is then taken to the supply room where the mechanic who brings the part is issued a new or repaired part, and this replacement is then taken back to the machine and put in place. The broken part is then delivered from the supply room to the machine shop where the possibilities of repairing it are studied. If it can be repaired it is placed on the welding table. If it is beyond repair it is sent to the scrap heap which is right at the door of the machine shop where it is under the eye of the foreman of the shop and the superintendent of the mill. We are all hoping never to see in our scrap heap any material that could have been repaired. * * *



Now, all of the machines, as I have said before, are made up mostly of cast iron parts; cast iron gears, brackets, cams, arms, etc. However, there are many steel journals that are subjected to continual wear. Most of this machinery is fast moving and requires settings to the thousandth part of an inch, and these settings must remain in place. Cotton which is choked up or lumped while passing through the machines creates tremendous pressures and when these pressures are imposed on cast iron parts, the iron breaks.

Due to the fact that the settings have to be so very accurate all through the mill, the management has quite a bit of difficulty in getting the mechanics who are charged with the efficiency of the machines to use repaired parts. To begin with, the mechanic knows that a new part is usually accurately made and because of this, it is easy to set it back into the machine. He also knows that if the welded replacement has not been welded in a workmanlike manner, it is not accurate and it will not fit and will have to be taken out of the machine, brought back to the shop and properly repaired. This takes time, stops the production, and causes dissatisfaction with the worker, who is paid only when the machine operates. Our management has been through this ordeal and we have our fight largely won. We have had our men who do our welding properly instructed. Thus we see, that the operation of the acetylene torch in a textile mill very definitely ties in with the human and personnel relations. It is easy to see the difficulty that you run into when you

build up a worn journal of a cylinder that has to fit within a few thousandths of an inch. This journal must be built up right and accurate to the nth degree and the man who is charged with replacing this cylinder must know that an accurate job has been done in the building.

On the modern Draper loom there

*Abstract of address at 38th Annual Convention, International Acetylene Association.

are approximately 1,800 parts. Most of these parts are cast iron.

All of the loom motions are abrupt. Each time the shuttle crosses the loom it must come to an abrupt stop and immediately be sent back on its return journey. The filling is beat into the cloth with a backward and forward motion, and the warp stop motion is also controlled by a backward motion. The battery is a very swift moving positive drive. As a matter of fact, the full quill is placed into the shuttle by a positive blow and the empty quill is knocked out of the shuttle by a blow. The motion of the harness which has the duty of separating the warp threads so that space can be provided for the shuttle to pass through, is controlled by quick breaking cams. The loom is stopped positively and abruptly whenever any of the threads break, or any of its parts break. As a matter of fact, a loom is known to "slam off" rather than "stop off." There is no slowing down process, and there is no gathering of speed. When a loom is started, it immediately starts at full speed. The whole setting of a loom is done with fine gauges and with levels. There is practically no guesswork at all, or merely sighting with the eye. A loom is either level or not level; it is on center or not on center.

Buy Parts From Loom Manufacturer

We have a contract with the manufacturer of our looms to buy replacement parts that go into the loom exclusively from him. We do this because we feel the absolute necessity of having these parts come to us accurately made and well machined so that when a replacement part is put into the loom we know that it will fit and that there will be no extra length, or high side, or low side. I say this to give you an idea of how important it is for proper welding to be done in a cotton mill. Every cotton mill keeps a very accurate account of the replacements that go into each of its looms. Accurate reports are made out every two weeks of the replacements required by each mechanic who is charged with the upkeep of a given number of looms. Comparisons of the cost of replacing parts of their work are made and every effort is exercised to keep these costs to a minimum. These mechanics are also charged with the production of their stand of looms. Naturally, they want to keep the looms running. The mechanic has a choice of placing new parts at a dollar per part in his looms or a welded part at, we will say, 50 cents, in his looms. Naturally, he will choose the dollar part rather than the 50-cent part if he feels that the repaired part will break after it is fitted into the loom, or that it will not fit, thus causing him to have to take it out of the loom and take it to the shop to be machined and brought to size, with a corresponding loss of production.

As I have said before, the management knows this situation, and so our program in the Avondale Mills, in order to get a full benefit of the acetylene torch, demands that the welding operator must be thoroughly trained to do his work well in order that the mechanics at the loom would just as soon have the repaired part as the new part. The program of selling the acetylene torch to its full benefit in the cotton textile industry is not a bed of roses.

I have gone into some detail explaining the necessary high breakage in looms. I won't discuss any of the other features of our manufacturing processes except just to

say that we have to contend with more or less erosion in our dye plant; that grit and dust and choked up cotton lint contribute to our spinning and roving processing troubles; that our slashers run into some little leakage of steam through the cylinder which can be repaired with the acetylene torch. But, in closing, I cannot help but reiterate that the full benefit of the acetylene torch in the cotton mill can only come about; first, through high grade workmanship and then by a spirit of co-operation between the machine shop and the foremen of the various departments.

What Makes a Leather Belt Wear Out?

The following practical hints on lengthening the life of belts appeared in the *Houghton Line* from E. F. Houghton & Co.

Of course all belts do wear out eventually, but some last much longer than others. Even the same type of belting operating under approximately the same conditions may last longer in one plant than in another.

This being the case, what are the factors which affect the life of a belt, and how can belts be operated to obtain the maximum life from them?

1. Slippage Most Frequent Cause of Belt Wear

Nearly all belts slip a small percentage during every moment they are under load. The slippage of flat leather or fabric belts may vary from less than one per cent to as much as six per cent. A flat belt, however, has the safety factor that if it begins to slip excessively it will run off the pulley unless both pulleys are flanged. V-belts have been shown to slip as much as 12 per cent and more, although the fact that they are running in grooves and hence cannot run off the pulleys results in this slip going unnoticed.

Over a period of years this slippage naturally tends to wear away the pulley surface of the belt. The frictional heat developed further weakens the belt and accelerates the rate of wear.

It is a good plan to check the surface speed of both the driving and the driven pulleys on all drives where the load is severe, particularly if the belts do not seem to be giving proper service. The surface speed of the pulleys can be easily computed by checking the r. p. m. of each pulley when the drive is under load, multiplying the speed of each pulley by its circumference and noting the difference between the surface speed of the driving and driven pulley. There will be a difference of one-half to one per cent in all cases due to belt creep. Any difference in excess of this is due to belt slip.

Careful observance of the following rules will reduce belt slip to a minimum on any drive.

1. Be sure to use a belt that has a high coefficient of friction.
2. Be sure that the belt is of ample width to transmit the load.
3. If it is a leather belt, dress it at regular intervals with a good oil dressing to keep it soft and pliable.

4. Be sure the belt is operating under the proper tension, but do not operate it excessively tight. Excessive tension places too great a strain on the belt and greatly shortens its life.

2. Dust and Abrasives Shorten Belt Life

When dust or abrasive particles are deposited on the surface of a belt they do not only increase the amount of slippage, but also have a grinding action on the belt surface. Belts that operate in dusty atmosphere should be cleaned at regular intervals with a stiff brush, and if the belt is made of leather it should be dressed frequently in order to keep it soft and pliable. Do not under any circumstances use any sticky belt dressings, as they will only serve to collect dust and pile it up on the surface of the belt and pulleys. When the belt and pulleys become coated with this doughy mixture of dust and belt dressing, it is practically impossible for the belt to transmit the load efficiently.

3. Avoid Operating Belts Excessively Tight

Nothing will shorten the life of a belt quicker than operating it too tight. Operating belts excessively tight is just like placing a three ton load on a one ton truck and then wondering why the tires wear out so rapidly.

The proper tension for a single-ply leather belt is approximately 50 pounds per inch of width; for a double leather belt about 75 pounds per inch of width. Although increasing the tension on any belt will increase its pulling power, the benefit is very temporary, as the excessive tension soon stretches the belt to such an extent that the tension cannot be maintained.

If it is found that the required tension is in excess of the maximum tension per inch of width mentioned above, then it will be far more economical to either use a wider belt, or if the belt is single ply to substitute a double-ply belt of proper width to withstand the tension without excessive strain.

However, our observation has been that most belts are run unnecessarily tight merely because the belt man likes to see a belt running "tight as a drum," not realizing that by doing so he is greatly shortening the life of the belt.

4. Do Not Use Pulleys or Too Small Diameters

The constant flexing of a belt operating at high speed over very small pulleys naturally increases the internal friction within the belt. Single leather belts usually should not be operated over pulleys less than two inches in diameter.

In some cases there is no way to avoid the use of small pulleys, although where it is possible the life of a belt can be considerably increased by operating it over pulleys a little larger than the minimums mentioned above.

5. Do Not Permit Belts To Dry Out Excessively

All leather belting contains a certain amount of natural lubricant which lubricates the leather fibers as they flex over one another in passing around the pulley. In the course of time, particularly if the belt is operated in a hot place, this lubricant is driven out and should be replaced by dressing the belt with a good neatsfoot oil dressing. This dressing should be applied to the belt with a brush after the belt is shut down at night. Within a few hours it will penetrate and lubricate all of the fibers, and not only increase the pulling power of the belt, but greatly prolong its life.

6. Oily Belts Should Be Degreased

If a belt becomes oil soaked with mineral oil, its life will be shortened from three causes:

1. An oiled-soak belt will slip easily and is likely to be burned by the resultant frictional heat.
2. Oil exerts a rotting action on certain types of leather belting.
3. Excessive amounts of oil tend to make the belt "mushy," with the result that it stretches easily and therefore requires frequent take-up.

An oily belt can easily be degreased by soaking it in carbon tetrachloride or naphtha for 24 hours, or longer if necessary. After degreasing, the belt should be allowed to dry out and should then be dressed with an oil dressing to replace the natural lubricant which has been removed during the degreasing.

The above factors cover the most frequent causes of early belt failure. Careful observance of the precautions mentioned may not only cut your belting bills 25 to 50 per cent, but will reduce the cost of belt maintenance and avoid many costly shutdowns due to belt failure.

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National Income and Wealth

(Continued from Page 12)

the effects of withdrawing such amounts from voluntary consumption and investment and devoting them to compulsory collective consumption and investment harmful? Is our national output of work sufficient to provide an adequate standard of living for the remainder of our national living budget and at the same time enable us to consume such amounts of public services or make such amounts of public investment? In short, with their existing working capacity and productive equipment and resources, can the American people afford to devote that much of their working energy and resources to the production and consumption of that much public services? Does this vast consumption of public services compensate wholly or in part for the private consumption and investment which it replaces?

Some of the facts adduced from the experience of the past six years are fairly obvious, and I shall list a few as examples.

We know that the total expenditure on government services or for public purposes during four of these years, from 1933 to 1936 inclusive, was \$2½ billion more than the total taxable net income of all business corporations and all individuals reporting taxable net income, and that currently it amounts to more than the total taxable net income of all corporations and all individuals reporting taxable net income of \$5,000 or over. This affords a concrete general measure of the diversion of income, for it indicates that *if all the cost of government were met by income taxation it would require the confiscation of practically the whole income of private business and self-supporting individuals*, and the standard of living of those involved would be reduced nearly to nothing. It makes clear, in short, that *the expenditures of government at current levels are in fact not met out of any surplus income, but in part out of artificially created money, which is a mortgage on future income, in part by a capital levy, and mainly out of the private current consumption of the great mass of the population.*

Expenditures Greater Than Workers' Income

We know, more specifically, that the amount being spent by government currently is greater than the wages earned by all workers in all the manufacturing industry of the country even in the peak year of 1939. If the entire earnings of all industrial workers were taken it would not pay the cost of government today.

We know, too, that the amount spent for public services, and the amount collected in taxes for this purpose, are greater than the whole people spend for clothing, or for housing, or transportation or recreation. Excepting only the cost of food bought at retail prices, the compulsory consumption of public services is larger than that of any other group of goods and services. The American people spend more for, or on, government than for any other item in their national living budget. Yet we know that the production and consumption of food, clothing, housing is insufficient for the needs of the population as a whole.

We know, moreover, that our expenditure for public services in recent years has been so much larger than we have been willing to pay for by taxes out of our current private consumption that we have had to mortgage our

future production, income and consumption to meet part of the current money cost. How much reduction in future consumption this entails, or for how long, will depend upon how rapidly and greatly our future income and production will be increased; but in any case it inevitably means some reduction in the national standard of living in the future below what it might have been otherwise.

What all these facts about the financial operations of government in recent years may mean in terms of the present or later welfare of the American people no one can yet presume to measure, because they have been accompanied by domestic depression, international disturbance, social and political changes, and by an elaborate legislative and administrative mechanism of regulation, control of management of business enterprise, labor, investment and consumption.

Temporary Relief

We do know that in part this vast process of redistributing, expanding, spending and investing the national money income has greatly extended the scope of public services available for current consumption, temporarily relieved an immense amount of immediate individual distress, provided a basis for assurance of a minimum monetary income for a portion of the future unemployed and aged persons in the population, and added to the public facilities or collective capital of the country a large amount of roads, bridges, parks, schools, etc. No one can say what the relative value of these latter facilities is as compared with others that might have been provided with an equivalent amount of money by private enterprise for private production and consumption. No one can say to what extent the assumption of these services and of the responsibility for support of unproductive citizens by government agencies represents a permanent shifting of the burden, or of the function, from the family, the local community, or private enterprise to the State, or what the ultimate consequences will be.

We know that, whatever these consequences may be for the future, they have been accepted as inevitable and approved as desirable for the present by a majority of our people, and thus represent to some extent their voluntary choice or consent as to how their production, consumption and standard of living shall be determined, regulated or rationed.

We do know also that, whatever the consequences may be for the future, these financial operations and engagements of government, taken together with the accompanying legislative and administrative controls of private activity, have so far not restored the general standard of living in this country to the levels of a decade ago. This is the last and most significant fact we have to consider in discussing the influence of public spending on national income and wealth.

The general standard of life, as I have said, is determined by the amount of useful goods and services per capita produced by the national output of work. For ten years now the annual amount of industrial, agricultural and mineral products produced has been less than it was fifteen years ago. In terms of amount per head of population it has fallen even farther behind the decade before 1929, when the relative proportion of public spending to the national income was about a third as great as it has been in recent years. *****

Standard of Living Declined

We know further that, not only has the current standard of living declined or ceased rising during this decade, but two more fundamental changes have occurred which affect the future standard of living of the country. The first and most important is that the working capacity of the population has diminished or deteriorated, as a result of prolonged or intermittent unemployment and failure of self-supporting activity on the part of a portion of the labor force which has been less than eight millions for only two brief periods during the past six years. This condition is in part the consequence of large-scale public spending for relief, in part of monopolistic control of employment opportunities by labor organizations supported by government, in part of government fixation of wages and imposition of taxes, additional costs, and other penalties upon private employment, and in part of the depletion and dissipation of investment funds by taxation, public spending and government control of the capital and credit markets.

The last mentioned conditions have contributed to a second fundamental change which affects the future standard of living of the country. During the past decade, and mainly during the past six years, new private investment in productive facilities has practically ceased. Apart from the relatively minor additions made to the collective capital facilities of the country through public investment or spending, there has been no increase in the real productive wealth of the nation since 1929. In fact, despite the changes in values brought about by monetary manipulation, the real national wealth is less today than it was a decade ago. * * * *

Thus we find ourselves today with a level of human working capacity, real productive wealth, and real annual income production no greater and indeed substantially lower than we had a decade ago, after a period of the largest public expenditure in this or any other country's peace-time history. *Though during the past ten years government has spent annually an average of \$4½ billion more than in the preceding decade, the annual national dollar income has averaged about \$10 billion less. Whatever other political and social repercussions this expenditure may have had, and however it may have changed the distribution of money income and wealth, it has not maintained the national output of work, the national Standard of living or the real productive capital of the country where they were when public expenditure was relatively half as great or less. Yet this is essentially what it was intended and expected to do, according to the theory on which it was based or by which it was rationalized during the past six years.* * * * *

Inflation of Authority By Static

This inflation of authority and absorption of social energies and initiative by the State—which in practice has usually meant a small group or a single person—has necessarily carried with it assumption of more and more complete control over the productive effort, the productive property and the flow of income of citizens. The source of the power of the State is always primarily fiscal and financial. The public purse strings are the reins of government. The immense expansion of State power resulting from the World War inevitably implied an immense expansion of public expenditure, taxation and use of

(Continued on Page 42)

J. G. Morgan Joins Quaker City Chemical Co.

The Quaker City Chemical Company announce the appointment of J. G. Morgan of Rochelle, Ill., as their Western representative.

Mr. Morgan will work with the Southern plant of the company in Knoxville, Tenn.

Mr. Morgan is well known to the textile industry in the Mid-West, having been associated with his brother, Ed Morgan, of the Morgan Dyeing & Bleaching Company, for the past several years.

U. S. Takes Title To 1,670,000 Bales Of 1934 Loan Cotton

Washington, D. C. — The Census Bureau reported Wallace announced on August 17th that the Government had acquired title to 1,670,000 bales of 1934 loan cotton. This will be used to complete the cotton-rubber barter deal with Great Britain and make delivery on sales to Spain, France and Switzerland.

The Commodity Credit Corp. obtained the cotton by closing out loans averaging 12 cents a pound for the 1934 cotton. Carrying charges and interest on the cotton will bring the total cost to the Government to approximately 16 cents a pound, it was estimated.

Taking title to this 1934 loan cotton provides stocks from which shipments can be made of such bales as may qualify for delivery under the agreement with the British Government. It is anticipated that only a small part of this 1934 loan cotton will be found to be of the grade and staple which will meet with the specifications for this transaction.

Secretary Wallace announced that the Government also will take title on September 1st to 5,270,000 bales of 1937 cotton on which Government loans averaging about 9 cents a pound have expired. He extended to July 31, 1940, loans on 4,480,000 bales of 1938 cotton.

The barter agreement with Great Britain calls for delivery of 600,000 bales of cotton in exchange for rubber. The cotton and rubber will be stored as reserve supplies for use in the event of war.

Arrangements have been completed through the Export-Import Bank for sale of 250,000 bales to Spain. France and Switzerland have agreed to purchase 135,000 bales to be stored as reserves.

Secretary Wallace said that the loans on 1934 and 1937 cotton, due August 1st, have expired, and that since the principle, plus accrued interest and carrying charges, are in excess of the market value of the cotton, the Government is taking title. The market value on the 1938 cotton, on which loans averaging 8.85 cents a pound were made, still is larger than the Government equity, and the loans have been extended by the Commodity Credit Corp., he said.

Since Commodity Credit Corporation loans are of the non-recourse type, the corporation acquires title under the terms of producers' notes and loan agreements by crediting thereon the principal amount loaned plus all accrued interest and charges.

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WANTED—Position as Personnel Manager with southern textile firm. Age 39. 7 years' experience in personnel work and management. 2 years' experience in working with Unemployment Compensation in an administrative capacity in textile manufacturing area. Experienced in working with all phases of the Social Security Act. At present employed with a government agency and desires change. Address "Personnel Manager," care Textile Bulletin.

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Lawrence A. Adams
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Cotton Stock Record Set

New Orleans, La.—The annual report of the New Orleans Cotton Exchange set 1938-39 consumption of American cotton at 11,086,000 bales, exclusive of linters, as compared with 11,177,000 last season and 13,253,000 in 1936-37.

The report put world carryover of American lint at 13,438,000 bales, the greatest in history, of which 13,326,000 is held in this country, almost all of it by the Government.

Exports of American cotton were set at 3,622,742 bales, compared with 5,954,000 in 1937-38 and 5,776,000 in 1936-37.



COTTON COMMENT

By Dameron Williams



On Dreaming Dreams

DOCTOR BRUNSON, the very able editorial writer for the Greenville, S. C., *News*, commenting on my article "What's Next in Cotton Legislation," in the BULLETIN for August 15th, very correctly makes the point that I didn't even answer my own question.

The Doctor is right. Furthermore, I'm convinced it would take a combination of Houdini, Sherlock Holmes, Moses and Donald Duck to approximate what is liable to happen.

In the particular article I took the stand that our agricultural policy consisted, in the main, of a series of contradictions; that backing and filling seemed to be the order of the day. In other words, we are in the position of the hero in the story who jumped on his horse and galloped off rapidly in all directions.

To add confusion to the confused, I might have inserted in that particular article such contradictory moves as:

(1) The action of Secretary Wallace in his speech at Fort Worth, Texas, last September, when he severely condemned the idea of an export subsidy.

(2) His subsequent reiteration of that stand in his message to the President in December.

(3) His full acceptance of the export subsidy stand in his speech at Little Rock, Ark., last May.

Then we might consider Secretary Hull's moves along reciprocal trade agreement lines. He puts in the "dog house" those nations who are such meanies as to pay an export subsidy on their exports.

Then we come along and start it in a big way.

Yes, sir! It's a great life.

I'm afraid we are going to have something like the Gallup Poll in cotton. The idea would be to have the cotton farmers vote their idea of what cotton should be worth. Then let everybody who buys a shirt or a suit of red flannels vote on how much they wanted to pay. Then go ahead and adopt both ideas.

We could make deficits legal tender and pay for the little difference of opinion. Or put a tax on taxes.

For the information of the cotton mills, I understand a bill is in the hatching stage for introduction at the next session of Congress to guarantee the farmer "parity" for

his cotton. As I understand the plan, if "parity" was set up as, say 15c, and cotton came on the market at 10c, the mills would be called upon to pay the farmer 5c additional on that portion of his cotton domestically consumed.

That'll be a big help to the cotton mill.

Incidentally, it is interesting to note that "parity" as defined by the Department of Agriculture is the price range from 1909 to July of 1914.

Those higher prices were obtained for the cotton farmer when he was selling his cotton in a non-regimented manner through private firms. Those are the prices we now say the farmer is entitled to.

Some cotton men occasionally pursue Bacchus. Some go a bit farther and catch him. In order to stimulate dreams it might be a good idea for us to have a bout with Bacchus, plus taking on an order of country ham, for instance. Then we might be able to envision something like this:

A cotton program based on common sense and operated along business lines, as opposed to the "Political Football" idea. A liquidation of the present enormous stocks by business-minded men on some plan calculated to do the least harm. (Since we have already made the error of accumulating the surplus, there is no easy way out.)

A firm resolve on the part of the powers that never again will we inflict on the cotton farmer the plague of a loan on his cotton.

Then we might be able to see, in this dream, the government rendering every reasonable bit of assistance to the farmer along lines of education in better farming methods, better seed selection, protection of land, and generally those things which would contribute to a cheaper cost of production, plus a better product.

Another flash in this dream might disclose a program which would recognize the outstanding fact that the American cotton farmer buys behind a tariff wall and has to sell at world prices. He ought to have a part of this tariff, from customs and otherwise—and based on some fair formula—in cash.

We ought to be able to see in this dream some provision for the cotton farmer which would enable him to

escape a jail sentence if his pet hog, Hortense, gave birth to say ten little pigs when her quota was only six.

But by that time we would probably wake up, realize it was only a dream and rush to the office just in time to protect an overdraft.

Items in General

A contract has been awarded Magnet Brothers Company, with main office in Newnan, Ga., by the Commodity Credit Corporation to class the 675,000 to 700,000 bales of cotton bartered to England. They will be paid 20c per bale for sampling and classing where the cotton is delivered to shipboard from its present location and 25c per bale if reconcentration is necessary. Should it be necessary to class and handle more cotton than the amount noted, charges will be 15c per bale for cotton not reconcentrated and 20c if reconcentrated.

Reports from Brazil would seem to indicate an increase in cotton production of about 10 per cent and a marked improvement in staple. On the other hand, a recent dispatch describes in detail the burning of one-third of all the coffee raised in this year's crop in Brazil. This is an effort on their part to boost prices for coffee which is sold at world prices. Brazil got into trouble when it failed to recognize this world condition, hence the fires.

There's an idea. I believe we could have just as good cotton fires as Brazil has with coffee. Being strongly patriotic, I believe we could have *better* fires. Could probably furnish a modern Nero, substituting radio and television for the fiddle.

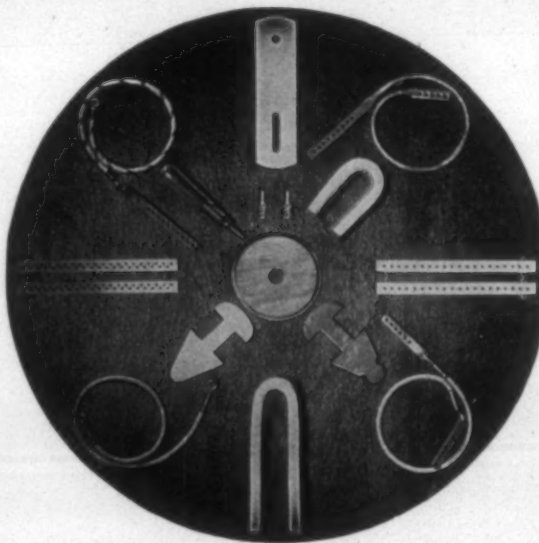
Egyptian cotton acreage, according to reports will show around 7% in Giza 7, about 11% in Sakha, approximately 50% in Giza 26, and above 60% in Giza 12. Radical reductions in acreage planted to Sakel, Maarad and Sagora will more than offset these increases, however, and the total acreage will probably be about 8 to 9% under last year.

Reports from the Greenville, S. C., section indicate that quiet prevails after the storm of buying of new crop in that territory. Mills have covered considerably ahead. The basis ranges from 75 to 100 on old December for middling $\frac{7}{8}$ ths, with 15/16ths 100 to 125 on. In some instances middling inch is being quoted at 125 on.

In Spartanburg, as previously reported, mills have bought a very large amount of new crop ahead. Like Greenville, demand has therefore, fallen off to a very low ebb. No particular change has been noted in the basis. Advices are that mills in the Spartanburg section will actually have very little cotton to buy for the balance of the year.

Sally was a flop-eared mule. She and Mose, her chauffeur, lived 'way down in the bottom part of Texas. Sally is a cotton plowing mule, and next issue I hope to write about what happens to our cotton crop from the time Sally first starts work. I believe we are going to find that Sally finally puts more men and women to work in all the varying processes cotton goes through than any other one agent.

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Cotton Goods Markets

New York.—The possibility of war in Europe and its effect on trade in this country has been the cause of watchful waiting among buyers of cotton gray goods during the past few weeks, and it is likely that buying will be somewhat under normal requirements until something definite is reported on the situation there.

However, there has been enough bidding for certain staples to indicate that buyers' supplies are running low and must be replenished soon, no matter how serious the Polish crisis may turn out to be. Second hand supplies of various constructions have been sold in trifling amounts at prices around $\frac{1}{8}$ cent under mill quotations, but the volume has been too small to influence the policies of mills.

One of the significant developments of the last few days has been the steady call for industrial specialties in the print cloth group. Some houses are understood to have done a very encouraging business on these. While buyers have confined commitments to shipments over the next four weeks, demand has been consistent enough to show that users are in need of goods and have exhausted about all of the supplies they had on hand. Industrial users seem to take the view that prices on most gray goods are so far under cost that they are not likely to work lower in the event that hostilities break out in Europe. With cotton prices under control and wage rates moving higher, a number look for even higher prices in the last quarter.

Mills making fine cotton goods, according to a survey by the Cotton-Textile Institute, report that business this year compared with a year ago is much improved. Present unfilled orders are 25 per cent more than in August last year, and are also more than on the same date two years ago. Furthermore, unfilled orders are 40 per cent in excess of inventory.

Staple combed fabrics, as well as specialties, are included in this improved demand.

The steadiness of the demand for fine cotton goods, 80 per cent of which are manufactured in New England, is evident from the record of the last half dozen years. For the thirty-one weeks to August 5th this year, fine cotton goods mills report that grey goods invoiced to their customers amounted to 9,440,000 pieces, or (counting 60 yards to a piece) 566,000,000 yards, against 447,000,000 yards during the same period last year.

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Cotton Yarn Markets

Philadelphia.—In spite of the threatening attitude in Europe and other disturbing factors in this country, the cotton yarn market has continued better than normal, and indications seem to point toward improvement during the next month or so. A goodly portion of the business has been done in small to medium lots, but the aggregate has been large, and in view of the situation in mill inventory and orders booked it seems likely that there will be further strengthening in the future.

Orders are coming chiefly from knitters, but also from some weavers, mostly for carded counts. Shipments continue actively sought, which confirms reports from most lines using sale yarns, to the effect that they are working from 5 to 10 per cent more employee-hours than a month ago and almost are 25 per cent above last a year ago. Shipments of certain types of yarn are 30 per cent larger than a year ago. In some cases, this movement of yarn into consuming channels has remained larger than seasonal during the last seven weeks.

Some customers lodge inquiries purporting to cover them into next spring but mostly the orders are for a shorter term. A good many buyers hold to their piecemeal policy in order to see how much effect the marketing of cotton may have on cotton quotations.

Leading spinners, however, are trying to quote yarn on its intrinsic worth, with which small fluctuations in cotton values have little influence, but stiffening labor costs have great effect.

While new buying may be active with some sellers and spotty with others, there is agreement as to deliveries, which remain unusually active and which, therefore, have been keeping the yarn mills far busier than at this time last year or in 1937. Almost daily there are requisitions from customers who find themselves using more yarn than they anticipated. In some cases to fill these hurry calls is a problem with the spinners, especially when the yarns have to be dyed.

The movement is being led by the better quality yarns, as was predicted by market leaders early in July.

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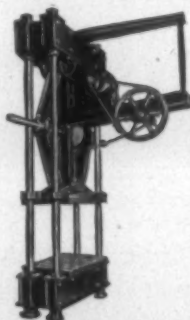
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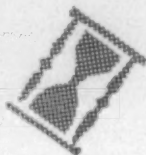
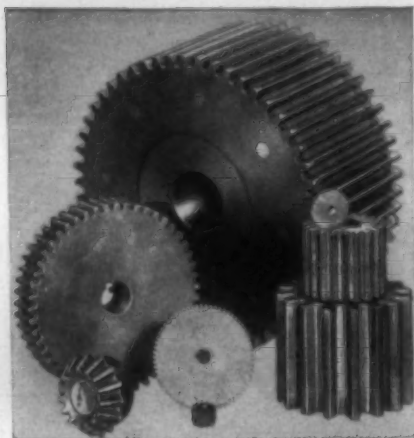
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How to Prevent Uneven Yarn

(Continued from Page 16)

ers cannot be overlooked, as bobbins of varying diameters make it next to impossible to set a tension at this point without stretching some of the roving. A variation of not more than ten-thousandths should be allowed on any speeder bobbins.

The twist in roving has much to do toward making even yarn, as too much twist is as bad as too little. Insufficient twist will cause stretching and too much will not draft properly on the next operation.

In creeling fly frames hands should be taught to overlap the piecings about the length of the staple running. More than this will cause a thick place and too short a piecing will cause thin places, thereby causing uneven spinning.

Some of the things that must be watched carefully in the spinning room are bad roll setting, dry and unclean rolls, and stirrups which are improperly set, rubbing on the rolls and causing uneven weight on them. The use of good rings and travelers of proper weight and style are very important. Steel rolls should be checked carefully, and any crooked or warped ones should be replaced. Worn cap bar nebs will affect the most careful roll setting, causing thick and thin places in the yarn due to a puckering action on the roving. Roving should be made the proper size package with just enough twist to prevent stretching between creel and feed roll. Blunt skewers, worn creel steps and waste and lint allowed to accumulate around the skewer stretches the roving, causing thick and thin places in the yarn.

Temperature and humidity should be watched carefully and kept as near constant at all times as is possible, as this affects the running of the work and evenness of the spinning.

There are many other things that could be said about uneven yarn, but in closing may I say that the production of even yarn depends upon the careful supervision of every process from the opening room through the spinning room.

H. Y. B.

Processing Filament Rayon Yarns

(Continued from Page 13)

yarns, in which event the latter are left in improper condition for subsequent processing.

Drying

Requisites for the dryer operator are, in some respects, similar to those for the employee who rolls the yarns for the soaking bath. He should have smooth hands, short, even finger nails; he should not wear a wrist watch nor a finger ring, and his sleeves should be rolled above the elbows. It is wise that he wear a cloth apron about his waist to prevent the yarns from hanging on his shirt buttons or belt buckle.

Every possible precaution should be used in jerking yarns for the drying process. The experienced and efficient operator is able to catch the yarn bundle in the palm of one hand, and unroll it with a deft motion, which leaves the skeins hanging on his wrist. Each skein is straightened by slipping a hand in its opposite sides and

then jerking outwardly. It is then placed upon a rod and hung upon the dryer trellis.

There are different types of dryers. Modern rayon manufacturers realize how essential good equipment is in this step of processing. Such men are careful to select the type of machine that will take care of the plant's output without overloading and overspeeding. Too, they are careful to ascertain that the mode of air circulation of the dryer will dry yarns satisfactorily without the necessity of resorting to overheating.

Since rayon yarns are subject to danger of irreparable damage by exposure to too-high temperatures, it is wise to use some method of heat control for the dryer. Steam gauges with automatic control valves are indispensable for such a safety plan.

A temperature of 140° F. to 160° F. is commonly considered correct for drying, providing the air-circulatory system of the machine used is efficient. It is unwise to resort to excessive heat in order to allow speeding of the dryer for an increased production.

Emphasis is intentionally placed upon the importance of a correct air-circulatory system for the drying machine. Bad circulation does not evenly distribute the heat through the yarns, and often prevents thorough drying at the correct temperature. Too, there have been instances when imperfect circulation caused the oxidation of the conditioning lubricants in the yarns. In such an event a thick, glutinous substance collects upon the walls and roof of the dryer. It is of a sufficiently liquid nature to drip, thus providing a definite danger of badly soiling yarns.

Yarns should be delivered by the dryer without any noticeable feel of dampness. The modern machine's speed can be regulated to insure such desired condition, while the temperature is kept at the correct level.

Dryer Rods

Rods used to hang skeins on for their passage through the dryer are usually made or covered with some frictionless material to prevent damages to yarn. Should this covering be broken or chipped, the rods are unsuited for use until recovered or treated to restore the former smooth surface.

Damage to rods can be prevented by moderate precaution in handling them. They should not be thrown violently against each other, or any hard surface. They should never be thrown end first into a box or other means of conveyance. They should also be cleaned often.

Although correctly dried yarns are not perfectly dry (bone dry), they are not in correct condition for the immediate process of winding. They should be stored in a room where the same relative humidity and temperature of the winding room is maintained. In twenty-four hours their moisture content should become normal. If space in the winding room is available, it proves an ideal place for such a storage plan.

Because tension on damp yarns is injurious to their tensile strength and elasticity, and because damp yarns are more susceptible to filament abrasion, it is definitely advisable that, in such condition, they never be processed by winding. Any costs which result in rare instances by waiting for correctly moisture conditioned yarns will be amply repaid by more perfectly processed and finished materials.

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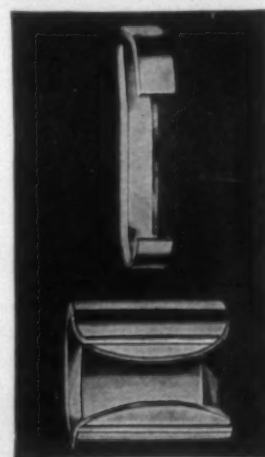
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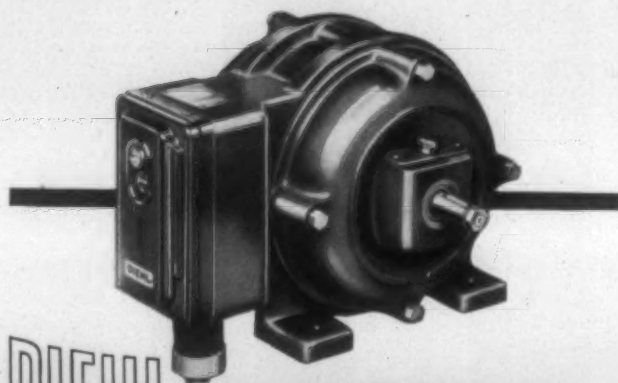
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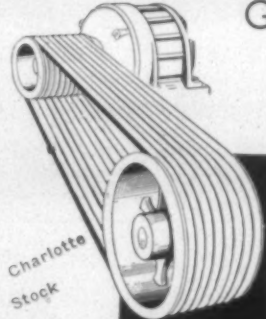


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National Income and Wealth

(Continued from Page 33)

public credit, and this in turn has inevitably been accompanied by increasingly direct and detailed control of production, consumption and investment of the community. As the State has absorbed more of the income of the community, it has had to absorb more of the income of the community, it has had to absorb more of its productive activity. In some countries it has finally had to assume management or ownership of the productive resources in order to assure a minimum standard of living as private enterprise and investment have contracted and dwindled under the burden of its exactions and restrictions. This process of "cold socialization," often speeded by appeals of private business and other groups for support, or protection against internal or external competition, is slower and less painful than expropriation by outright revolution, but the outcome is essentially the same—a gradual drying up of the productive social resources which reside in spontaneous individual effort, and a lowering of the general standard of life.

Thus the vast growth of public expenditure, the elaborate financial operations of which it is a phase, and the theoretical rationalization upon which it is based in this and every other country are both an expression and an accelerating stimulus of the spread of the spirit of Statism and the decline of the spirit of liberal humanism during the past quarter century in consequence of the World war. * * * *

So, to return in conclusion to the particular aspect of Statism which I am considering—public expenditure—there is no deep mystery in the facts I have cited regarding its failure to promote real recovery or restore real prosperity in this country. The academic theory upon which it has been pursued rests upon what may be called the slot-machine conception of our economic organization. It assumes that the productive activity of the community is an automatic mechanical process, in which the human beings involved are mere passive cogs actuated by monetary counters, chips or tickets, which may be real or merely lead slugs like those used to cheat the subway turnstile. It forgets that the forces that influence human effort in production and trade are infinitely complex, subtle and varied. It ignores the fact that the processes of invention, investment, organization, management in human enterprise are fluid and sensitive, and affected in unforeseeable ways by many other factors in the surrounding situation besides the amount of money that is put into circulation by government. Our economic system is a living organism, not a slot machine which will yield an inexhaustible supply of chewing gum so long as pennies are put into it, and certainly it will never yield several pieces for each penny unless someone is cheating. *Behind every dollar spent by anybody—government or citizen—there must be a definite amount of real work done by somebody if the dollar is to be worth anything. To get this work done is the ultimate and inescapable problem of the State and society. The plain fact is that, despite the collection and printing and spending of billions of dollars by government, we are not getting this work done, and the obvious conclusion is that something else is needed to get it done.*

Cherokee Spinning Co. To Open New York Sales Office

Announcement is made that the Cherokee Spinning Co., Knoxville, Tenn., will establish a sales office in New York beginning September 1. Sidney D. Blue, formerly associated with Cluett, Peabody & Co. for ten years, having resigned to take up this new work, will have charge of the selling, merchandising and styling of the new office.

Technicolor Film On Cotton Industry To Be Made

Production is to begin immediately on the first reel of a motion picture in technicolor on the cotton industry, which is expected to be ready for release about October 1st. The first reel is expected to be the beginning of a much larger project which will eventually include four or five reels with an approximate showing time of 50 minutes. The purpose is educational, the picture being designed to supply the audience with an authentic and comprehensive view of the varied roles which cotton plays in the social and economic life of the country.

The script was written by M. D. C. Crawford, research editor of Fairchild Publications and an outstanding authority on the history of textiles. It will be produced by B. K. Blake, Inc. I. A. Jacoby technically adjusted the script to the requirements of screen production.

The undertaking is being carried out under the direction of a Motion Picture Committee consisting of heads of a number of the more important trade associations within the industry.

The picture will portray the growing of cotton on a typical Southern plantation, the processes of harvesting,

ginning, pressing and distributing cotton as a raw material. It also will include all of the operations of manufacture, including finishing and fabrication, and will provide close-ups of every important type of cotton processing. It will embrace scenes from the community life of the textile areas and portray all of the more important uses of cotton and its products. The historical background of the industry, including the early stages of development in New England and the South, will be included.

In this first reel, emphasis will be placed upon highlights of cotton agriculture and cotton industrial activity to provide a comprehensive understanding of the industry and a back-ground adequate to an effective presentation of more detailed treatments to be contained in subsequent films.

The picture is being financed through voluntary individual contributions from all members of the industry and allied activities by the Motion Picture Committee and are being directed to all those whose major business activity or source of livelihood is associated with cotton.

Commenting on the undertaking, Dr. Claudius Murchison, president of the Cotton-Textile Institute, stated: "No industry in America is more talked about or less understood than the cotton-textile industry, and no agricultural problem which confronts us is more confusing than the issues having to do with cotton. The best means of providing such information and understanding to general public is through the medium of the screen, which enables actual and accurate visualization of all the things which go to make up the problem.

"For a long time this idea of a motion picture which would represent the industry as a whole has been germinating in the minds of many leaders in the industry, and now that it is on the verge of realization, there is universal satisfaction that we shall be able to show and explain ourselves to the American public.

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X-Ray To Determine Cotton Fiber Quality

That the x-ray may provide the most rapid and practicable method for determining and predicting cotton fibre quality, and comparative spinning value, is indicated in a paper by Dr. Earl E. Berkley in the August number of Textile Research. The paper not only describes the x-ray method employed but also the arrangement of the cellulose of the cotton fibre at different stages of development. Dr. Berkley is associate cotton technologist, Bureau of Plant Industry and Agriculture Marketing Service, and this study is part of the program of Cotton Quality and Standardization Research under the direction of Dr. Robert W. Webb.

Another feature of the August issue is the Textile Foundation research report by Arnold M. Sookne and Dr. Milton Harris on "Electrophoretic Studies of Silk." The data developed in this study suggests that sericin contains a much greater proportion of reactive groups than fibroin, and indicates the importance of obtaining either uniform of complete removal of sericin during degumming processes.

U. S. Cotton Carry-Over 13,032,611 Running Bales

Washington, D. C. — The Census bureau reported that the cotton carry-over at the beginning of the cotton year of 1939-40, on August 1, was 13,032,611 running bales—the largest quantity of cotton held at this time of the year in the history of government statistics.

A cotton crop of 11,412,000 bales this year was forecast earlier this month by the Agriculture department. That will be added to the carry-over to make up the year's supply.

There was a carry-over of 11,533,439 bales a year ago and 4,498,848 bales two years ago. The average carry-over for the 10 years, 1929-38, was 6,744,800 bales.

The bureau's annual report on the supply and distribution of foreign and domestic cotton in the United States for the cotton year 1938-39, ending July 31, follows:

Supply: Stocks on hand August 1, 1938, 11,533,439 bales (held as follows: In consuming establishments 1,262,532; in public storage and at compresses, 9,645,907 and elsewhere (partially estimated), 625,000); imports 131,584 bales; ginnings during the 12 months 11,602,610 bales, (including crop of 1938 after July 31, 1938, 11,465,356 bales, and crop of 1939 to August 1, 1939, 137,254 bales); aggregate supply 23,267,903 bales, compared with 22,920,985 bales for the 1937-38 season.

Distribution: Net exports (less re-imports), 3,324,857 bales; consumed 6,860,246 bales; destroyed (baled cotton), 66,000 bales; and stocks on hand July 31, 1939, 13,032,611 bales (located as follows: In consuming establishments, 861,656; in public storage and at compresses, 11,620,955 and elsewhere (partly estimated), 550,000); aggregate distribution 23,283,714 bales, compared with 22,949,833 for the 1937-38 season.

Excess of distribution over supply (due principally to "city crop" consisting of re-baled samples and pick-

ings from cotton damaged by fire and weather), 15,811 bales, compared with 28,848 bales for the 1937-38 season.

The supply and distribution of linters was as follows:

Stocks August 1, 1938, 864,859 bales; production 1,115,916 bales; imports 44,870 bales; exports 213,054 bales; consumption 846,904 bales; destroyed 16,000 bales, and stocks July 31, 1939, 955,000 bales.

July Cotton Consumed Totals 72,952 Bales More Than in '38

Washington. — The Census Bureau reported cotton consumed during July totaled 521,405 bales of lint and 74,032 of linters, compared with 578,488 and 71,655 during June this year, and 448,453 and 61,559 during July last year.

Cotton on hand July 31 was reported held as follows:

In consuming establishments, 861,656 bales of lint and 290,732 of linters, compared with 1,021,236 and 300,572 on June 30 this year, and 1,262,532 and 268,379 on July 31 last year.

In public storage and at compresses, 11,620,955 bales of lint and 99,724 of linters, compare with 11,943,683 and 99,265 on June 30 this year, and 9,645,907 and 101,480 on July 31 last year.

Imports for July totaled 15,840 bales, compared with 11,824 in June this year and 25,047 in July last year.

Exports during July totaled 106,531 bales of lint and 19,820 of linters, compared with 113,634 and 14,751 for June this year, and 195,706 and 20,864 for July last year.

Cotton spindles active during July numbered 21,915,363, compared with 21,788,286 during June this year, and 21,915,394 during July last year.

Cotton consumed in July included: In cotton-growing states, 442,138 bales, compared with 489,700 during June this year and 381,164 during July last year, and for the twelve months 5,813,404 bales, compared with 4,880,644 the previous year; and in New England states 63,598 bales, compared with 72,095 and 55,239, and for the twelve months 858,714 bales, compared with 707,563.

Cotton hand July 31 included:

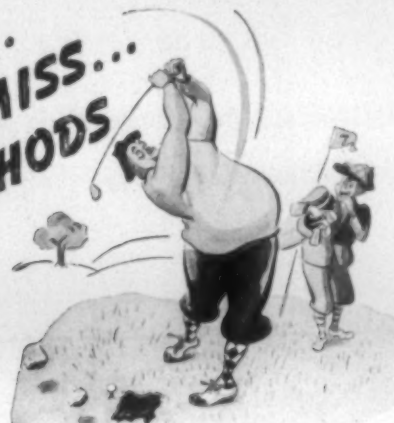
In consuming establishments: In cotton-growing states, 681,708 bales, compared with 826,065 on June 30 this year, and 1,036,748 on July 31 last year; and in New England States, 144,847 bales, compared with 155,309 and 170,933.

In public storage and at compresses:

In cotton-growing states, 11,586,745 bales, compared with 11,905,819 on June 30 this year and 9,569,117 on July 31 last year; and New in England States, 29,765 bales, compared with 33,907 and 63,403.

Cotton spindles active during July included: In cotton-growing states, 16,526,873, compared with 16,380,852 during June this year, and 16,659,862 during July last year; and in New England States, 4,760,550, compared with 4,777,374 and 3,684,256.

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SHUTTLES

HAND CARDS • STRIPPER CARDS

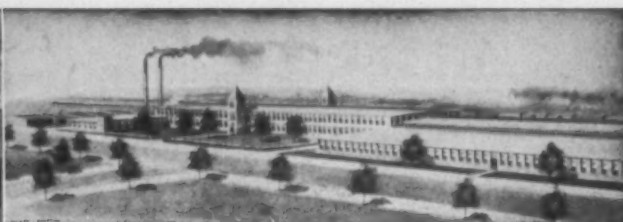


WATSON-WILLIAMS

MANUFACTURING CO.

MILLBURY, MASSACHUSETTS

E. V. Wilson, 308 Mills Ave., Greenville, S. C.



Visiting the Mills

Intimate Glimpses of Activities in Southern Textile Plants and the Men Who Own and Operate Them.

By Mrs. Ethel Thomas Dabbs (Aunt Becky)

RALEIGH, N. C.

Honorable Clyde Hoey, the "Friendliest Governor"

That's what the people of Raleigh call him, "the friendliest governor." My little granddaughter, Ethel Mae Wesson, and little grand-niece, Virginia Thompson, will always treasure the memory of our visit to Governor Hoey and a tour over the capital. We even went on top of it for a view of the city, escorted by Mr. Stell.

The capital is 106 years old. It used to be heated from fire places which burned wood and coal, and there are eight fire places in "The House," which has 120 members. The Senate is composed of 50 members, presided over by Lieutenant Governor D. L. Ward of Newbern.

The State Museum

Every North Carolinian should visit the marvelous exhibits from all over the State. The museum is in the annex to the North Carolina Department of Agriculture, just north of Capital Square, and is open from 9 a. m. to 5 p. m. daily, on all week-days.

"Know North Carolina Via Your State Museum" is a good motto, and if put into practice will make us better, prouder citizens.

Pilot Mills Co.

This is the only operating cotton mill in Raleigh, and one of the most interesting in the State. More than 100 different styles of seat covers, furniture upholstery and draperies, calling for 100 different styles and numbers of filling, are manufactured to perfection here. R. L. Harris is "filling" man.

L. C. Finley, formerly overseer weaving, is superintendent, and fills that position quietly, gracefully and efficiently and is well liked.

E. E. Finley has been promoted from assistant to overseer of weaving. He has about the liveliest bunch of loom fixers this writer has ever encountered. Every single one of them is a regular subscriber to TEXTILE BULLETIN. They are T. T. Baker, W. J. Davis, A. S. Davis, J. H. Dean, J. F. Konegay, Troy Liner, H. B. Meacham, L.

W. Mingia, J. E. Pulley, C. T. Sessomon, M. H. Sides, Howard Stroud, Blanco West, J. R. Womack, H. H. Casper, R. J. Wilkins, E. F. Thomas, John S. Talbot, H. C. Casper, H. B. Horton and R. C. Ricks. These are loom fixers that will never get stale on the job.

C. S. Howard is second hand in weaving on first shift, and F. M. Sides on second shift. J. E. Ammons is smash hand; W. V. Moore, tying in; Douglas Small, warp man; J. B. Strickland, sample man; M. J. Johnson, J. H. Thompson, and Walter B. Dodd, slasher men.

J. E. Cole is overseer card room; Iowa Grady, second hand on second shift.

In spinning room, J. L. Denton is overseer on first shift and J. E. Peebles on second shift.

J. S. Meacham is second hand; H. H. Koontz, S. H. Bryant and Lee Lassiter are section men.

B. H. Barbour is color man; O. F. Peatross (State College man) and D. F. Johnson are busy overhauling the spinning room machinery where needed. N. H. Brown is overseer warping.

P. N. Hughes, dyer; L. G. Strickland, assistant; W. M. Richardson, shipping; C. E. Danilly and E. B. Covington, overseers cloth room; E. T. Davidson, master mechanic.

S. G. Riley, designer, is also assistant manager.

C. S. Tatum, secretary and manager, is always busy and hard to find, but is one of the best known and liked mill officials in the State.

W. S. Westbrook, the genial and courteous office manager, has been here 31 years.

Girl Goes to Honolulu to Marry!

Mr. Hughes, overseer dyeing, told me that his sister, Miss Ruth Hughes, a nurse from Raney Hospital, Burlington, had gone to Honolulu to marry a man formerly of Elon College, but now torpedo man on a submarine! Another sister, Mrs. Katherine Heatwole, and two other nurses drove with the bride-to-be to Los Angeles, Cal., where she took a boat for Honolulu. The round trip of 8,000 miles made by the Burlington ladies were made in record time and without the least trouble of any kind.

The Warrens

Of course I never go to Raleigh that I do not see my good friends Mr. and Mrs. W. B. Warren. He now has a store near the mill, and furnishes cold drinks, milk, sandwiches, etc., for the mill employees. Carl Chatham runs the "refreshment wagon" for Mr. Warren, and is truly on the job.

Mrs. Warren runs a boarding house for the mill, and here's hoping some needed improvements in the building will soon be made. There is no place where an up-to-date boarding house would be more appreciated, and no one more suited to run it than Mrs. Warren.

DRAYTON, S. C.

Drayton Mfg. Co.

Drayton Mill and village do credit to the beautiful city of Spartanburg and the Textile South. The people are high-class and excel in athletics, as proven by the many trophies on display in the mill office. Not only in athletics, but the fine products manufactured so successfully here are conclusive evidence of textile efficiency.

Some of the prettiest and most charming girls in the South are employed in Drayton Mills. They take advantage of educational opportunities and some go to college and work during vacation. Then, too, a number of the young men are taking textile courses and fitting themselves for advancement. These are the kind of people that are dependable and worthy of confidence--the hope of our country.

A Flock of White Crows

Drayton Mill can boast of something very unusual--a flock of "white crows." The Daddy Crow has been here 17 years, and is Smith Crow, the genial, dependable and beloved superintendent. "Aunt Becky" was a dinner guest in "The Crows' Nest," which is so delightfully presided over by Mrs. Crow, who looks like "one of the girls."

One little Crow was born the 8th hour of the day, on the 8th day of the month, in the 8th month of the year, and will be eight years old next birthday, and is the 8th child, I believe. This is truly a delightful family, and Mr. Crow is seeing that his fine boys and girls are educated and fitted for future responsibilities.

Our good friend, J. I. Lourens, overseer of weaving, was out sick; called to see him, and am sure his better half will soon have him up and "good as new." She seems to be a real good nurse.

Assistant Superintendent G. G. Simmons and L. J. McCall, "swatch man" (don't leave the "s" off and make it watchman) took good care of me.

What is a "swatch man"? He's an expert on cloth manufacturing, and uses a magnifying glass to inspect samples of every piece of cloth woven; he catches every little imperfection and has it remedied. Quite a job, if you ask me, even if he does take it sitting down.

Lovely rayon dress goods, shirt goods, handkerchiefs, and other fabrics are made here, and the display in the cloth room is a riot of loveliness.

The weave room key men are J. I. Laurens, overseer;

E. D. Coker, assistant overseer; O. B. Hanies, W. R. Hughes, W. E. Simmons, L. E. Baywell and F. W. McClellan, second hands on first shift. L. C. Smith, J. S. Darnell, L. H. Darnell, F. O. Thompson and G. W. Hendrix on second shift.

Also Guy Caldwell is a second hand, recently promoted from loom fixer.

George Hendrix, second hand and Wayne Hughes, a weaver, were in a car wreck near Newberry and were in the hospital there at the time of my visit to Drayton.

Powell, overseer cloth room, was off on vacation, but I saw his assistant overseers, J. D. Gault on first, and L. H. Hughes on second shift.

My son had recently been here and had seen our friends in the carding and spinning departments, but I did secure one subscription, F. R. Buchanan, assistant overseer carding.

A Hot Ball Game

Drayton has an excellent diamond, and at 4 p. m. the Converse team played them a hot game, the nine innings resulting in two to three in favor of Drayton.

Converse has a left-handed pitcher that keeps the batter guessing. One of the Converse batters knocked a ball clear over the fence, and one of the Drayton boys almost did it. It was a fine game, and a large, well-behaved crowd.

FOREST CITY, N. C.

Florence Cotton Mills

Forest City is among the best little towns in the South, and Florence Cotton Mills, one block from the "square," among the best in its line.

It had been quite a while since the writer visited this busy textile plant, and the hearty welcome and courtesies extended by superintendent W. B. Morgan will long be among my most pleasant memories.

Florence Mills manufacture high grade outing flannels of unusually lovely patterns, and is going nicely under the supervision of Mr. Morgan and his efficient department heads.

The operatives are high-type, and Mr. Morgan says he has never known a finer or more loyal group. It is easy to see that the best of friendly relations exist between the management and help.

Ray Burnett is overseer carding and spinning; W. H. Fanning, overseer carding; A. H. Lisk, J. M. Jenkins, and C. L. Owens, card room key men; R. K. Sorrells, second hand in spinning.

F. Y. Hamrick, overseer weaving; E. A. Scruggs, second hand; Ray Reep, E. J. Doggett, J. A. Bradley, and J. K. Moore are live wire loom fixers.

M. R. Earley, T. C. Bridges, and Perry Guffey, slasher men; C. C. Lowrance, T. L. Gamble, and A. M. Johnson, drawing in.

F. S. Gamble, overseer finishing, with Maurice Smart, assistant. C. B. Bostick, cloth checker.

The pretty cloth room, showing the finished product

(Continued on Page 50)

Southern Sources of Supply

For Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

AKRON BELTING CO., Akron, O. Sou. Branches, 15 Augusta St., Greenville, S. C.; 390 S. Second St., Memphis, Tenn.

AMERICAN BLOWER CORP., Detroit, Mich. Sou. Offices: Court Square Bldg., Baltimore, Md.; 1211 Commercial Bank Bldg., Charlotte, N. C.; Rooms 716-19, 101 Marietta St. Bldg., Atlanta, Ga.; 846 Baronne St., New Orleans, La.; 1005-6 American Bldg., Cincinnati, Ohio; 619 Mercantile Bldg., Dallas, Tex.; 201 Petroleum Bldg., 1314 Texas Ave., Houston, Tex.; 310 Mutual Bldg., Kansas City, Mo.; 620 S. 5th St., Architects and Bldrs. Exhibit Bldg., Louisville, Ky.; 1433 Oliver Bldg., Pittsburgh, Pa.; 7 North 6th St., Richmond, Va.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, 822 W. Morehead St., Charlotte, N. C. Hugh Puckett, Southern Sales Mgr. Reps., John D. Hunter, C. B. Suttle, Jr., A. W. Foley, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 1202 W. Market St., Greensboro, N. C.; Eugene H. Driver, 272 14th St., N. E., Atlanta, Ga.; Wilton H. Earle, Jr., 409 Westfield Ave., Greenville, S. C.

AMERICAN MOISTENING CO., Providence, R. I. Southern Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN PAPER TUBE CO., Woonsocket, R. I. Sou. Rep., Ernest F. Culbreath, 602 Commercial Bank Bldg., Charlotte, N. C.

ARMSTRONG CORK CO. (Textile Division), Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley.

ARNOLD, HOFFMAN & CO., Inc., Providence, R. I. Frank W. Johnson, Sou. Mgr., Box 1268, Charlotte, N. C. Sou. Reps., Robert E. Buck, Box 904, Greenville, S. C.; Harold T. Buck, 1615 12th St., Columbus, Ga.; W. Chester Cobb, Hotel Russell Erskine, Huntsville, Ala.; D. Floyd Burns, Jr., Box 198, Durham, N. C.

ASHWORTH BROS., Inc., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., Atlanta, Ga.; Texas Rep., Textile Supply Co., Dallas, Tex.

ATLANTA HARNESS & REED MFG. CO., Atlanta, Ga. Succeeded by Steel Heddle Mfg. Co., Atlanta Division. (See this company's listing.)

AUFFMORDT & CO., C. A., 2 Park Ave., New York City. Sou. Rep., S. L. Diggle, Jr., 522 Hawthorne Lane, Charlotte, N. C.

BANCROFT BELTING CO., Boston, Mass. Sou. Rep., Ernest F. Culbreath, 602 Commercial Bank Bldg., Charlotte, N. C.; Herbert Booth, Claridge Manor Apt., Birmingham, Ala.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C. J. H. Spencer, Mgr.

BORNE, SCRYMSEY CO., 17 Battery Place, New York City. Sou. Mgr., H. L. Siever, P. O. Box 1169, Charlotte, N. C. Sales Reps., W. B. Uhler, 608 Palmetto St., Spartanburg, S. C.; R. C. Young, 1546 Stanford Place, Charlotte, N. C.; John Ferguson, 303 Hill St., LaGrange, Ga.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Rep., J. H. Zahn, Johnston Bldg., Charlotte, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CHARLOTTE CHEMICAL LABORATORIES, Inc., Charlotte, N. C.

CHARLOTTE LEATHER BELTING CO., Charlotte, N. C.

CIBA CO., Inc., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

CLINTON CO., Clinton, Iowa. Luther Knowles, Sou. Agt., Box 127, Phone 2-2486, Charlotte, N. C. Sou. Reps., Grady Gilbert, Box 342, Phone 1132, Concord, N. C.; Clinton Sales Co., Inc., Dana H. Alexander, 2 Morgan Bldg., Greenville, S. C.; Geo. B. Moore, Box 481, Phone 822, Spartanburg, S. C.; Boyce L. Estes, Box 325, Phone 469, LaGrange, Ga. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Bonded Service Warehouse, Atlanta, Ga.; Farmers Bonded Warehouse, Roanoke Rapids, N. C.

COMMERCIAL CREDIT CO., Baltimore, Md. Sou. Rep., C. T. Broun, Wilder Bldg., Charlotte, N. C.

CORN PRODUCTS REFINING CO., 17 Battery Place, New York City. Corn Products Sales Co., Greenville, S. C. John R. White, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg, S. C. J. Canty Alexander, Asst. Sou. Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga. C. G. Stover, Mgr.; Corn Products Sales Co., 824-25 Security Bank Bldg., Greensboro, N. C. W. R. Joyner, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala. L. H. Kelley, Mgr. Stocks carried at convenient points.

CUTLER, ROGER W., 141 Milk St., Boston, Mass. Sou. Office, Woodside Bldg., Greenville, S. C. Southern Tape Agent:

Byrd Miller, Woodside Bldg., Greenville, S. C. Roll Agents: Dixie Roller Shop, Rockingham, N. C.; A. J. Whittemore & Sons, Burlington, N. C.; Dixie Roll & Cot Co., Macon, Ga.; Morrow Roller Shop, Albemarle, N. C.; Greenville Roll & Leather Co., Greenville, S. C. Take Up Roll Agent: M. Bradford Hodges, Box 752, Atlanta, Ga.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Rep., John E. Humphries, P. O. Box 843, Greenville, S. C.; Chas. L. Ashley, P. O. Box 720, Atlanta, Ga.; John H. O'Neill, P. O. Box 720, Atlanta, Ga. H. Reid Lockman, P. O. Box 515, Spartanburg, S. C.

DIEHL MFG. CO., Elizabethport, N. J. Textile Dept., P. N. Thorpe & Co., 267 Fifth Ave., New York City. Sou. Offices: Charlotte, N. C., 617 Johnston Bldg., James H. Lewis; Atlanta, Ga., 172 Trinity Ave., S.W., S. G. Boyd; Dallas, Tex., 2nd Unit Santa Fe Bldg., Olin Duff.

DILLARD PAPER CO., Greensboro, N. C., Greenville, S. C.; Charlotte, N. C.

DRAKE CORP., Norfolk, Va.

DRAPER CORPORATION, Hopedale, Mass. Sou. Rep., E. N. Darrin, Vice-Pres.; Sou. Offices and Warehouses, 242 Forsyth St., S. W., Atlanta, Ga.; W. M. Mitchell; Spartanburg, S. C., Clare H. Draper, Jr.

DU PONT DE NEMOURS & CO., Inc., E. I., Organic Chemicals Dept., Dyestuffs and Fine Chemicals Div., Wilmington, Del. John L. Dabbs, Sou. Sales Mgr.; D. C. Newman, Asst. Sou. Sales Mgr.; J. D. Sandridge, Asst. Sou. Sales Mgr.; E. P. Davidson, Asst. Mgr. Technical, Sou. Warehouses, 414 S. Church St., Charlotte, N. C. Reps., C. H. Asbury, H. B. Constable, J. P. Franklin, J. F. Gardner, L. E. Green, M. D. Haney, W. R. Ivey, S. A. Pettus, A. W. Picken, N. R. Vieira, Charlotte Office; J. T. McGregor, Jr., James A. Kidd, 1035 Jefferson Standard Bldg., Greensboro, N. C.; John L. Dabbs, Jr., G. H. Boyd, 804 Provident Bldg., Chattanooga, Tenn.; R. D. Sloan, T. R. Johnson, Greenville, S. C.; W. F. Crayton, Adam Fisher, Jr., W. A. Howard, Columbus, Ga.; J. A. Franklin, Augusta, Ga.; Tom Taylor, Newnan, Ga.

DU PONT DE NEMOURS & CO., Inc., E. I., The R. & H. Chemicals Dept. Main Office, Wilmington, Del.; Charlotte Office, 414 S. Church St., LeRoy Kenette, District Sales Mgr. Reps., J. L. Moore, Technical Man, Penn R. Lindsay, Salesman, 414 S. Church St.; John C. Robertson, 1220 Passadena Ave., Atlanta, Ga.; Technical Man; R. C. Cochran, 356 Pine Tree Drive, Atlanta, Ga.; Salesman; W. F. Murphy, 1106 19th Ave., Nashville, Tenn., Ceramic Salesman.

EATON, PAUL B., 213 Johnston Bldg., Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Plant, 118 1/2 W. Fourth St., Charlotte, N. C. George Field, Mgr.; Geo. F. Bahan, District Rep.

ENGINEERING SALES CO., 217 Builders' Bldg., Charlotte, N. C. S. R. and V. G. Brookshire.

FIDELITY MACHINE CO., 3908-18 Frankford Ave., Philadelphia, Pa. Sou. Reps., John E. Fox, First National Bank Bldg., Charlotte, N. C.; R. C. Aycock, 911 Provident Bldg., Chattanooga, Tenn.

FOSTER MACHINE CO., Westfield, Mass. Sou. Office, 1314 Johnston Bldg., Charlotte, N. C.

FRANKLIN MACHINE CO., 44 Cross St., Providence, R. I.

FRANKLIN PROCESS CO., Providence, R. I. Sou. Plants, Southern Franklin Process Co., Greenville, S. C.; Central Franklin Process Co., Chattanooga, Tenn.

GENERAL COAL CO., 1215 Johnston Bldg., Charlotte, N. C. C. L. Rowe, Sou. Sales Mgr. Reps., J. W. Lassiter, F. W. Reagan, E. H. Chapman, Charlotte, N. C.; J. C. Borden, Grace American Bldg., Richmond, Va.; D. H. R. Wigg, Walnwright Bldg., Norfolk, Va.; W. A. Counts, Law & Commerce Bldg., Bluefield, W. Va.; H. C. Moshell, Peoples Bank Bldg., Charleston, S. C.; P. W. Black, Greenville, S. C.; H. G. Thompson, Bristol, Tenn.

GENERAL DYESTUFF CORP., 435 Hudson St., New York City. Sou. Office and Warehouse, 1101 S. Blvd., Charlotte, N. C. B. A. Stigen, Mgr.

GENERAL ELECTRIC CO., Schenectady, N. Y. Sou. Sales Offices and Warehouses Atlanta, Ga. E. H. Ginn, Dist. Mgr.; Charleston, W. Va., W. L. Alston, Mgr.; Charlotte, N. C., E. P. Coles, Mgr.; Dallas, Tex., L. T. Blaisdell, Dist. Mgr.; Houston, Tex., E. M. Wise, W. O'Hara, Mgr.; Oklahoma City, Okla., F. D. Hathway, R. F. Dunlap, Mgr.; Sou. Sales Offices: Birmingham, Ala., R. T. Brooke, Mgr.; Chattanooga, Tenn., W. O. McKinney, Mgr.; Ft. Worth, Tex., A. H. Keen, Mgr.; Knoxville, Tenn., A. B. Cox, Mgr.; Louisville, Ky., E. B. Myrick, Mgr.; Memphis, Tenn., G. O. McFarlane, Mgr.; Nashville, Tenn., J. H. Rarkedale, Mgr.; New Orleans, La., R. Willard, Mgr.; Richmond, Va., J. W. Hicklin, Mgr.; San Antonio, Tex., I. A. Uhr, Mgr.; Sou. Service Shops, Atlanta, Ga., W. J. Selbert, Mgr.; Dallas, Tex., W. F. Kaston, Mgr.; Houston, Tex., F. C. Bunker, Mgr.

GENERAL ELECTRIC VAPOR LAMP CO., Hoboken, N. J. Sou. Reps., Frank E. Keener, 187 Spring St., N. W., Atlanta, Ga.; C. N. Knapp, Commercial Bank Bldg., Charlotte, N. C.

GILL LEATHER CO., Salem, Mass. Sou. Reps., Gastonia, N. C.; W. G. Hammer, Greenville, S. C.; W. J. Moore, Ralph Gossett, Griffin, Ga.; Belton C. Plowden.

GREENVILLE BELTING CO., Greenville, S. C.

GULF OIL CORPORATION OF PA., Successor to **GULF REFINING CO.**, Pittsburgh, Pa. Division Sales Offices: Atlanta, Ga.—A. M. Wright, Greenville, S. C.; T. C. Scaffie, Spartanburg, S. C.; J. H. Hooten, Gastonia, N. C.; R. G. Burkhalter, Charlotte, N. C.; G. P. King, Jr., Augusta, Ga.; Boston, Mass.: New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, O.

HART PRODUCTS CORP., 1440 Broadway, New York City. Sou. Mgr., Charles C. Clark, Box 274, Spartanburg, S. C. Sales Reps., Tally W. Piper, Box 534, Fairfax, Ala.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga.; J. C. Martin, Agt.; Johnston Bldg., Charlotte, N. C.; Elmer J. McVey, Mgr.; Fritz Zweifel, Fred Dickinson, Jim Miller, sales and service representatives.

HERCULES POWDER COMPANY, Wilmington, Del. Distributors—Burkart-Schier Chemical Co., Chattanooga, Tenn.; Hercules Powder Co., Paper Makers Chemical Div., Atlanta, Ga.; Hercules Powder Co., Johnston Bldg., Charlotte, N. C. Warehouses—American Storage and Warehouse Co., 505-513 Cedar St., Charlotte, N. C.; Textile Warehouse Co., 511-513 Rhett St., Greenville, S. C.; South Atlantic Bonded Warehouse Corp., Washington and Macon Sts., Greensboro, N. C.

HERMAS MACHINE CO., Hawthorne, N. J. Sou. Rep., Carolina Specialty Co., P. O. Box 520, Charlotte, N. C.

HOLBROOK RAWHIDE CO., Providence, R. I. Sou. Distributors, Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., and Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Sullivan Hdw. Co., Anderson, S. C.; Montgomery & Crawford, Spartanburg, S. C.; Carolina Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Southern Belting Co., Atlanta, Ga.; Greenville Textile Mill Supply Co., Greenville, S. C.; and Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; Waters-Garland Co., Louisville, Ky.

HOLLISTER, E. W., Box 721, Spartanburg, S. C. Distributor in N. C. and S. C. for The Merrow Machine Co. and American Safety Table Co. Merrow parts and supplies stocked at Spartanburg.

HOUGH SHADE CORP., Janesville, Wis. Sou. Reps., James B. Barton, Jr., 223 Mortgage Guarantee Bldg., Atlanta, Ga.; F. H. Hughes, P. O. Box 454, Greenville, S. C.

HOUGHTON & CO., E. F., 240 W. Somerset St., Philadelphia, Pa. Sou. Reps., Sales Mgr., 1301 W. Morehead St., Charlotte, N. C. Sou. Reps., C. L. Elbert, 1306 Court Square Bldg., Baltimore, Md.; T. E. Hansen, 3807 Seminary Ave., Richmond, Va.; S. P. Schwyer, 507 N. Main St., High Point, N. C.; D. O. Wylie, 1301 W. Morehead St., Charlotte, N. C.; C. H. Patrick, P. O. Box 1003, Greenville, S. C.; J. J. Reilly, 2855 Peachtree, Apt. No. 5, Atlanta, Ga.; H. J. Reid, 308 Hillcrest Ave., Decatur, Ga.; V. C. Shadden, 1821 Auburndale Ave., Chattanooga, Tenn.; L. N. Manley, 333 St. Charles St., New Orleans, La.; J. W. Byrnes, 333 St. Charles St., New Orleans, La.; G. J. Reese, 402 S. Independence St., Sapulpa, Okla.

HOUGHTON WOOL CO., 253 Summer St., Phone Liberty 1875, Boston, Mass. Sou. Rep., Jas. E. Taylor, P. O. Box 2084, Phone 3-3692, Charlotte, N. C.

HOWARD BROS. MFG. CO., Worcester, Mass. Sou. Office and Plant, 244 Forsyth St., S. W., Atlanta, Ga.; Guy L. Melchor, Sou. Agent; S. W. Rep., Russell A. Singleton Co., Inc., Mail Route 5, Dallas, Tex.; J. Floyd Childs, 244 Forsyth St., S. W., Atlanta, Ga.; Carl M. Moore, 833 York St., Gastonia, N. C.

HUBINGER CO., THE, Keokuk, Iowa. Southeastern Sales Rep., Chester M. Goodyear, 1284 Piedmont Ave., N. E., Atlanta, Ga. Warehouse stocks at Greenville, S. C.; Winston-Salem, N. C.; Atlanta, Ga.

JACOBS MFG. CO., THE E. H., Danielson, Conn. Sou. Executive, W. Irving Bullard, Pres., Charlotte, N. C.; Sou. Sales Mgr., S. B. Henderson, P. O. Box 133, Greer, S. C.; Sou. Service Mgr., Dan B. Griffin, P. O. Box 1036, Greensboro, N. C.; Sou. Subsidiary, The E. H. Jacobs Mfg. Corp., Box 544, Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Shelby Supply Co., Shelby, N. C.; Sullivan Hardware Co., Anderson, S. C.; Montgomery & Crawford, Inc., Spartanburg, S. C.; Carolina Supply Co., Greenville, S. C.; Greenville Textile Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Southern Belting Co., Atlanta, Ga.; Industrial Supplies, Inc., LaGrange, Ga.; The Young & Vann Supply Co., Birmingham, Ala.

JACKSON LUMBER CO., Lockhart, Ala.

KENNEDY CO., W. A., 814 S. Tryon St., Charlotte, N. C. W. A. Kennedy, Pres.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C.; Daniel H. Wallace, Sou. Agt. Sou. Warehouses, Greenville, S. C.; Charlotte, N. C. Sou. Reps., Claude B. Her, P. O. Box 1383, Greenville, S. C.; Luke J. Castile, 224 Monticello Terrace, Charlotte, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.

LAUREL SOAP MFG. CO., Inc., 2607 E. Tioga St., Philadelphia, Pa. Sou. Reps., A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.; and W. R. Sargent, P. O. Box 1044, Greenville, S. C.

THE MERROW MACHINE CO., 8 Laurel St., Hartford, Conn. E. W. Hollister, P. O. Box 721, Spartanburg, S. C.; R. B. Moreland, P. O. Box 895, Atlanta, Ga.

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Visiting the Mills

(Continued from Page 47)

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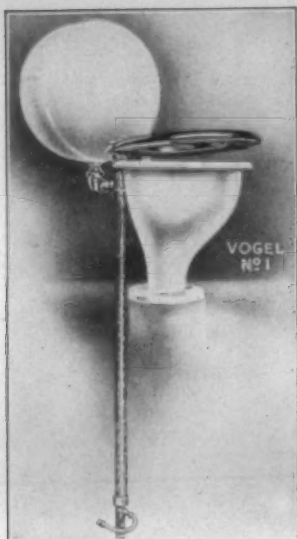
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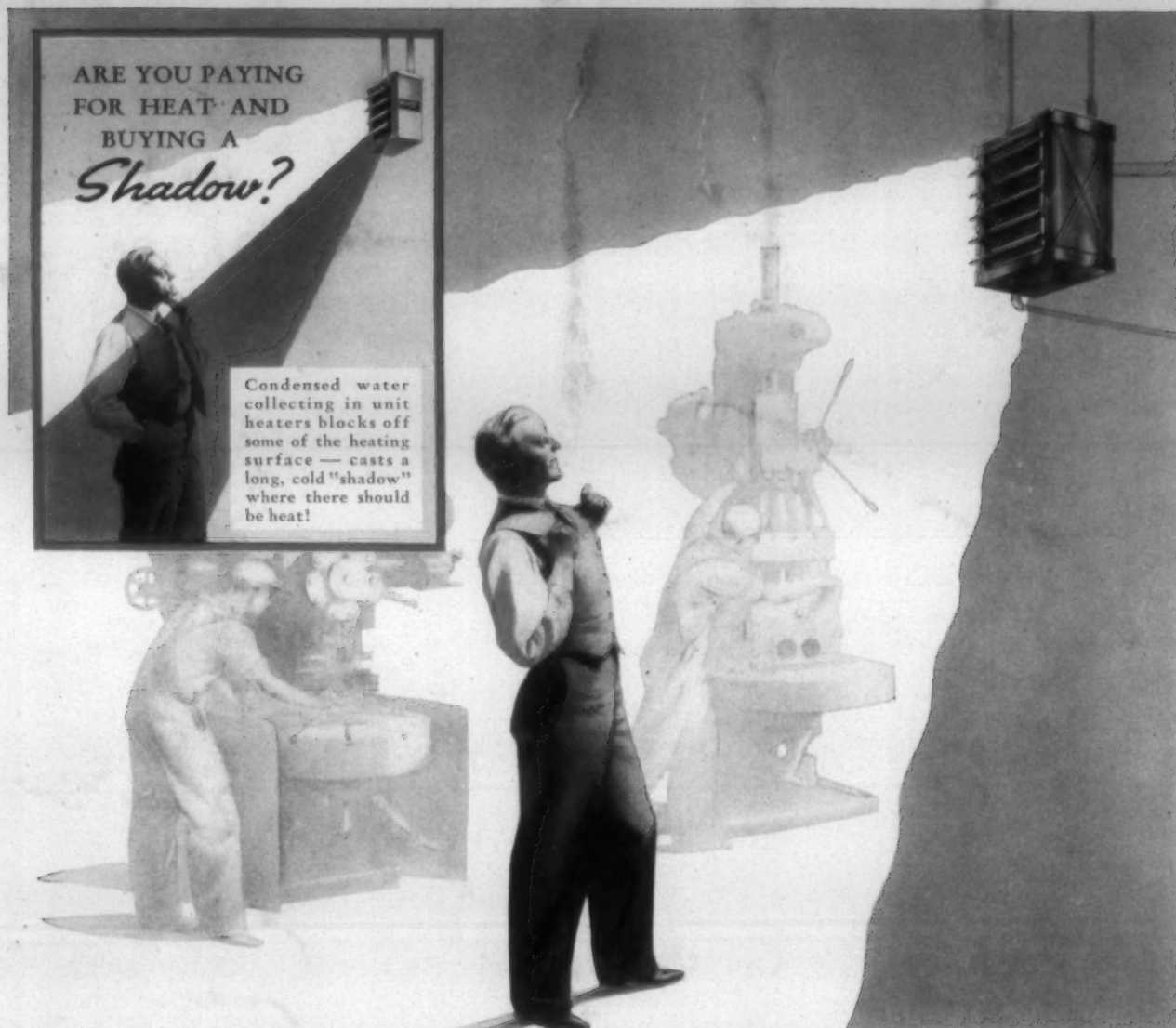
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